

Oklahoma State Medical Association

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PRESIDENT'S ADDRESS.

Fellows of the Oklahoma State Medical Association:

Another year, with its trials and disappointments, its joys and triumphs, has passed into eternity since our last meeting. Kind Providence has permitted us to again assemble as a State Medical Association, and our assembling here today for the first time in the great State of Oklahoma should be sufficient to cause every doctor in this proud State to give thanks to the God of the Universe for this blessed privilege.

Our coming together is saddened by the reflection that some who were wont to meet with us today are no more. The Committee on Necrology will doubtless do full justice to their memory.

This being the second Marriage Anniversary of the Oklahoma and Indian Territory Associations, it is well for us to cast about and see whether or not that marriage has been happy and fruitful. Two years ago our membership was very near as great as it is at this time, so you see that we may claim a happy union but not a fruitful one; our increase has not been what it should have been. The profession has not been as active in the matter of organization as we hoped and expected, however, good reason can be assigned why such lethargy existed. The coming of Statehood and the election for the ratification of the Constitution, combined with the election of State officers and representatives, have overshadowed, in a measure, all other matters. With the advent of Statehood much confusion arose as to component societies, which necessitated the redistricting of the State into new councilor districts, changing the name and character of county societies, much of which is yet in a chaotic condition and needs the careful and immediate attention of the councilors. We are glad to note, however, that in some localities the physicians

have shown their deep interest in medical organization by meeting and organizing without the aid of the councilors.

I respectfully suggest that the councilors visit at once each county in their districts and effect a permanent organization in harmony with the plan recommended by the State Association. Every reputable physician in the State should belong to the Association, and when this is accomplished we will then have fully two thousand names upon our roster.

I am glad to state that the matter of a State Journal is no longer a conjecture with this Association, and in order to maintain and foster that Journal I beg to advise the Association to raise to the constitutional limit the membership dues, which will place our official publication on a financial basis that will not impel it to prostitute our proud and noble profession by carrying obnoxious and methodical advertisements. Have a clean Journal, supported by the profession, and for the profession. I also suggest that the Association make the Secretary the Editor in Chief, the same to not be connected in any way as professor, teacher or stockholder in any medical school in this State. I feel that the members of this Association will readily see the necessity for placing this safeguard about the Journal.

In regard to medical legislation, I beg to express my deep regret that I am unable to report to you any favorable progress in that line; a case of merit unappreciated and labor unrewarded, of which all physicians are only too familiar. The Committee on Public Policy and Legislation will present a detailed report of work done in that line, with results. I am glad to be able to state to you that in many States that the influence of the organized profession is being recognized and much good to the public is being accomplished, and I urge this Association to keep a good, active man in the national legislation council, and in order to do so the Association should arrange for the payment of the actual expenses of such delegate; it is enough to ask a good physician to give his time.

Allow me finally to express the hope, as well as belief, that this meeting will be one of great profit and pleasure to all who participate in its deliberations, and each session marked by the harmony inspired by loyal devotion to the noblest of all professions and bound together by common hopes and aspirations, we can, and I trust we will, make the meeting of 1908, in this charming and beautiful city, not only rich with contributions to science, but memorable for its many pleasures.

Respectfully submitted,

C. S. BOBO, President.



THE SURGICAL PROSTATE.

(By Horace Reed, M. D., Oklahoma City.)

HISTORY.

Symptoms of enlarged prostate have been recognized from time immemorial, although the existence of this structure was not recognized until about the beginning of the sixteenth century.

The older writers considered that retention of urine in the aged male was due to outgrowths or "excreescences" at the neck of the bladder, and their destruction was attempted with metallic instruments introduced through the urethra. The ignorance of the ancients as to the existence of the prostate may be explained on the hypothesis that they did not practice dissection of the human body. They applied the term "prostate" to a description of the seminal vesicles. This confusion was probably brought about by the fact that the prostate of the lower domestic animals, as well as that of the monkey, is a bifid organ.

The discovery of the human prostate is attributed to Nicolo Massa, a physician of Venice who died in 1563. Riolanus soon afterward suggested that the bladder could be obstructed by a swelling of the prostate, and in several cases of retention of urine this surgeon successfully practiced perineal drainage of the bladder. Some surgeons early in the nineteenth century both recommended and practiced tunneling of the obstructing body by a catheter, but this method was finally abandoned as dangerous. Many references to tumors of the bladder and prostate are to be found in medical literature of the first three-fourths of the nineteenth century and numerous surgeons devised procedures to relieve the distressing symptoms due to urinary obstruction, but they have fallen into disrepute under the brilliant results obtained from operations which have been devised in the last decade. Two operations, however, I will mention as having accomplished more than others.

Mercier, in 1837, devised special instruments called "Prostatome and Prostatectome." These were used much as the internal urethratome is used at the present day. The results obtained were satisfactory enough that several authors vied with each other in claiming priority in devising this method.

The other operation is what is known as the Bottini, and was introduced about 1873 by the surgeon of that name. This method has been extensively used and has yet a number of supporters. Even as late as 1902 Young, of Baltimore, was employing and recommending it as a procedure of choice. This surgeon made some valuable improvements on the original Bottini instrument.

Bottini's aim was to accomplish with cautery all that the Mercier instrument did by cutting, and thus avoid hemorrhage, which was frequently encountered when the Mercier instrument was used.

The good results of the operation, however, were not due

*Read before the Central Oklahoma Medical Society.

so much to the cutting as to the destruction of the tissue about the prostate with the intense heat and with a subsequent cicatricial contracture of the structure.

The modern operation is a result of evolution. Supra-pubic drainage for complete obstruction was being performed by various surgeons. At first they would only venture to snip off the small tumors projecting into the bladder which could be seen when supra-pubic cystomy was performed, or felt when lithotomy was the operation.

Seeing the good accomplished by going thus far, they grew bolder until, finally, the classical and eminently satisfactory operation of enucleation is the result. To Mr. Freyer of England belongs the credit of popularizing the modern operation.

INDICATIONS FOR OPERATION.

Even though so short a time has elapsed since radical treatment has been employed, it is now thoroughly accepted that Prostatectomy is the method of choice for the treatment of enlargement of the prostate, and a large series of operations have demonstrated that in chosen cases the mortality is extremely low and in cases of urgency, that is, where long standing difficulty of micturition and septic infection have worn down the patient's strength, it is not unduly high.

Setting aside inflammatory enlargements of the prostate, there are two distinct types which must be carefully distinguished from one another before a decision is reached with regard to operation to be advised.

1. The Glandular or Epithelial Type.
2. The Fibrous or Connective Tissue Type.

Ten per cent of the first are carcinomatous, and radical treatment in such cases depends upon the progress the malignant degeneration has made. Prostatectomy upon the lines of enucleation is totally unsuited for carcinoma of the prostate, just as no surgeon would recommend enucleation of breast carcinoma.

Young, of Baltimore, devised an operation for this condition when not too far advanced, the principle of which is total extirpation together with the trigone of the bladder and prostatic urethra. Sarcoma of the prostate, which may occur in the second or fibrous class, allows, so far as we know, no procedure for its relief, and the results of Young's operation for carcinoma has a high primary mortality, and the final results in those who survive it are not very encouraging. Such being the state of surgery with regard to malignant disease of the prostate, it is obviously imperative that we determine whether any prostate is innocent or malign. The results of obstructed micturition due to enlargement are the same whether the growth is innocent or malignant.

The examination of a case should be directed to, (1) the history; (2) the symptoms; (3) examination of the abdomen; (4) examination bimanual and per rectum; (5) instrumental

examination, including rectal examination while sound or metallic instrument is in the bladder, also testing of residual urine, and, when possible, a careful cystoscopy; (6) analysis of 24 hour specimen of urine, and (7), general examination of patient with special reference to the cardiovascular and respiratory system.

(1) History of the Case. It is necessary to ascertain the nature of onset. The patient's habit of life previous, for an apparently acute retention is often only the culmination of a long standing trouble, and long standing difficulty commonly indicates damage to bladder, ureters and kidneys.

(2) Symptoms. Undue frequency of micturition is usually the earliest symptoms noticed and, next to this, the inability to start the flow. Pain may be present, and its character and situation should be noted.

Sacral pain, radiating to the perineum and down the thighs is, according to Pardoe, not infrequent in carcinoma. Vesicle Calculus, over distention and cystitis give rise to the characteristic penile and hypogastric pain.

Thirst, a dry tongue, dry skin, polyuria and lumbar pain indicate damaged kidneys. Hematuria is a common symptom and is more frequent in the adenomatous than in the malignant type except in the later stages of the latter disease.

(3) Abdominal Examination. An over distended bladder may easily be palpated; and with the bladder emptied, (4) rectal examination combined with abdominal, an enlarged prostate may be palpated in pretty much the same way as with bimanual examination the uterus may be outlined in the female.

(5) Instrumental. Consists in testing for residual urine ascertaining the length of the prostatic urethra and, together with rectal examination, is the best method for determining the relative size and position of the tumor.

Cystoscopy will often reveal intravesical enlargement when per rectum the prostate feels quite small.

(6) Examination of 24 hour collection of urine should be made to determine the functioning capacity of kidneys.

(7) Lastly, a careful examination of patient's general condition.

There is one other symptom not yet mentioned, nor have I as yet found any reference to it in literature, as a surgical condition. I refer to the abnormal sexual excitement which some men in declining years experience. Rarely, it is true, is the advice of a physician sought by such subjects, and a large number hail with delight this supposed regaining of lost manhood and allow their enthusiasm to lead them into habits which, if it does not bring actual suffering, does bring about social conditions, the consideration of which is foreign to this paper.

Such symptoms can be explained on no other hypothesis than that of an abnormal condition due to irritation, and when

found are always associated with prostatic hypertrophy and engorgement. Such patients usually have other symptoms than sexual excitement, suggestive of the real condition.

As already stated, the effects of obstructed micturition is the same whether due to benign or malignant disease, therefore the differential diagnosis must be made from an examination of the prostate itself. This examination should be made systematically and the difference carefully noted. Pardoe* has formulated a table which may be followed with convenience. The essentials are the following:

First, Outline:

Glandular hypertrophy—usually smooth.

Fibrous enlargement—quite regular and rounded.

Malignant—usually very irregular.

Second, Consistency:

Adenoma—elastic and soft.

Fibrous—always firm, but never stony hard.

Malignant—stony hard except in very early stages.

Third, Interlobar Sulcus:

Adenoma—persists.

Fibrous—persists.

Malignant—disappears early.

Fourth, Mobility:

Adenoma—quite mobile.

Fibrous—mobile.

Malignant—fixed.

Fifth, Infection of Lymph Glands—never except in malignancy.

From the above it will be seen that it is not so difficult to arrive at a correct diagnosis, and such a one can be made in a majority of cases. We should remember, however, that prostates innocent at first may become malignant, and in giving prognosis and advising treatment this fact must not be forgotten.

TREATMENT.

Twenty years ago the surgical treatment of the vermiform appendix was rarely resorted to, and when employed at all, it was considered as a procedure of last resort. Now no physician or surgeon who is progressive thinks of any other than surgical treatment for appendicitis except where environments are such that it cannot be employed, or unless the patient absolutely refuses such treatment. Fifteen years ago, likewise, patients suffering with chronic indurated gastric ulcer were doomed to suffer all the miseries of the dyspeptic, and the concoctions and mixtures these creatures were asked to swallow is yet recent enough in our memory that we cannot help but feel a sting of

*The British Medical Journal, October 5, 1907, Page 889.

reproach in the light of the results recently obtained from posterior gastro-enterostomy. And so, ten years ago, the first and practically the only treatment accorded to complete urinary obstruction, where it could be successfully employed, was the catheter, and there are those yet who would recommend it as preferable to the radical treatment. When the results obtained by prostatectomy become generally known we will all be in accord in advising its employment. I can think of no condition, except the absolute refusal of the patient to accept operation, in which I feel justified in advising a catheter life. It is true that we frequently see men who have followed this method for five, ten or sometimes fifteen years without any great inconvenience, yet for every one who does not suffer from one or more of the dangers of such a practice, there is a greater number whom it does not relieve, or who die as a result of septic infection which the catheter itself was instrumental in producing. In my opinion it is better, in the very feeble or in those suffering with far advanced malignancy of the prostate to introduce supra-pubic drainage as a palliative measure. This is done under local anesthesia, and the patient, however much depressed, suffers comparatively no shock.

In adenomatous prostates, encucleation is the operation of choice. Even in these cases a total extirpation is performed by many surgeons, and the results are just as good. In the case of fibrous prostates, piecemeal perineal prostatectomy is the method we have employed, and with gratifying results.

It is unfortunate, now that we have a remedy for prostatic hypertrophy, that so many surgeons differ so widely as to how it should be accomplished. As stated in the beginning, to Freyer must be conceded the honor of popularizing the operation. His method of approach is supra-pubic.

Six years ago in last July, this surgeon placed before the profession his method of operation and detailed four successful cases. Since then he has published numerous papers on the same subject, the last of which appeared in the British Medical Journal of October 5, 1907. In this last series he reviews all his cases of total enucleation—432 in all.

In his last series of cases, numbering 107, he had seven deaths, and in the whole number his mortality has been 7 per cent. Thirty-one of his patients were over 80 years old, and the youngest was 48. The average age was 68 1-4 years. He states the causes of death in his twenty-nine cases that ended fatally as follows:

Cases.		Cases.	
1. Uraemia	11	7. Exhaustion (30 days after) ..	1
2. Heart Failure	5	8. Heat Stroke (8 days after) ..	1
3. Septicaemia	2	9. Pneumonia	1
4. Mania	2	10. Acute Bronchitis	1
5. Liver Disease	2	11. Pulmonary Embolism	1
6. Shock	2		

While Freyer is thus able to report such brilliant results

from the supra-pubic operation, others, by some form of perineal route, are showing almost equally good results and a decreased mortality rate.

Watson*, in 1904, collected 203 case reports from a few eminent surgeons using the perineal route and found that the mortality was 2.9 per cent. The same author also showed that mortality in sixty-nine cases operated by three English surgeons of high standing, using the supra-pubic route, was 8.6 per cent.

DISCUSSION OF METHODS.

The perineal route offers two well recognized methods, (a) the median incision, exemplified, and it is also permissible to say, popularized by Goodfellow; (b) the manifold open operations, best typified by the inverted V incision, so well demonstrated by Young of Baltimore.

In America, perhaps, the ablest exponent of the supra-pubic incision as the method of choice is Deaver. The majority of American operators, however, prefer the perineal operation.

In Europe Freyer is easily the foremost exponent of the supra-pubic route. There are those in both America and Europe who will do the operation only by one or the other method exclusively. It is perhaps safe to make the statement that in either case the operator who uses one method to the entire exclusion of the other is wrong. There are prostates that cannot be removed by the supra-pubic or trans-vesicle route so easily and safely as by the perineal, and vice versa, but this is far from saying that Mr. Freyer could not succeed in removing practically every prostate by the upper route, or that Dr. Young could not accomplish the same by the lower. Briefly, then, it will be interesting and profitable to see in how far it is possible to select cases so as to insure the best results in the hands of the average operator.

In considering the supra-pubic route one should, in the beginning, understand the difference between the method of dealing with the gland advocated by McGill, and that advocated by Freyer. The former attempts to do enucleation in two or more pieces, and endeavors to conserve the prostatic urethra, while the latter, as his later utterances at least indicate, makes no effort to save this structure, but removes the gland en masse, together with a part or all of the prostatic urethra.

It is also well to consider that there exists a difference in the perineal operation as done, for instance, by Young and Goodfellow. The former does an enucleation by the perineum as McGill does by the trans-vesicle, while the latter accomplishes by the lower route what Freyer does from above, being at the disadvantage, as compared to the upper route, of working in the dark and by touch alone.

In determining which route to select, the unprejudiced and impartial operator should carefully consider:

(a) **Accessibility.** Some glands, without doubt, can be

*Annals of Surgery, Vol. XXXIX, page 854.

removed by one route easier than by the other. Have we any means of deciding in the individual case? In the first place the individual operator should study his own peculiar qualifications and bias. So far as the prostate itself is concerned those which have a decided tendency to extend posteriorly, as evinced by the inability to touch the upper border of the mass with the examining finger per rectum, speak for the upper route, however, the use of the prostatic tractor makes accessible by the perineum many otherwise inaccessible prostates and facilitates their removal directly under vision, with surprising ease.

It is also true that a long, dextrous finger is a great aid, but unfortunately surgeons cannot have fingers made to order. Watson* makes the statement that fully one-third of all prostates cannot be removed by the perineum alone, but this statement was made before tractors had come into general use, and is far from the truth today.

The writer heard Dr. J. B. Murphy remark that he found it more convenient to remove about three out of five prostates by the perineal route.

Moore* of Minneapolis very truly says that "The operator's fingers grow longer as he grows in experience in the perineal operation."

In the so-called "middle lobe" hypertrophies the upper route is the one of choice, when the diagnosis can be positively made. When cystoscopy can be practiced, such a diagnosis can be made with ease.

On the other hand, the hard fibrous prostate firmly fixed about the neck of the bladder should be undertaken only by the perineal route. In this sort of case Freyer himself failed to complete the operation supra-pubically. ||*

Again, the prostate may be so large as to preclude its easy removal by the inferior route without segmentation.

(b) Hemorrhage. It is urged by advocates of the superior route, as an important item in its favor, that hemorrhage is much less. If this is true it is important, for these old, broken down patients illy brook the loss of blood.

My own experience in these cases, as well as observation of the work of others, convinces me that as a rule hemorrhages by either route is largely a matter of the "personal equation" of the operator. In other words, the more experienced the operator becomes, the less will this annoy him or militate against his patient. There is no question but that the McGill supra-pubic enucleation is attended always by more or less furious bleeding, even in skilled hands, while the same is not true of enucleation by what is known and described by Young as the perineum.

*Annals of Surgery, 1889.

||*Trans-American Surgical Association, 1902. Vol. XX, page 59.

||*Deaver—Enlargement of Prostate, quoting from the British Medical Journal.

This objection does not hold for the so-called Freyer *en masse* removal from above.

(c) Drainage. Deaver strongly urges the supra-pubic operation because of better drainage this way. It surely seems a solecism to assert that water will run up hill with greater facility than down hill. Since this is contrary to all known laws of physics we are inclined to believe that while it is possible, by siphonage, to secure effective bladder drainage, this is accomplished inevitably, as a matter of course, much better by the perineum.

(d) Effect on Sexual Function. Obviously this is a matter very difficult to properly and accurately estimate. It is a matter about which few patients will speak the truth. Even old men are loath to admit that "only the ashes" of burned out amatory passions remain.

Some of these patients are self admittedly impotent before operation, while others claim to be benefited by operation. Likewise, as already mentioned, still others are unduly amorous as a result of the pathological process.

Whether the seminal ducts are destroyed or not should have little effect on the copulative function itself, although the individual would be sterile.

Freyer makes no attempt to save these structures in working by the upper route, and this likewise is true of Goodfellow, working by the lower. Young claims to be successful in saving them.

To my mind this is altogether a matter of minor importance. In matters of life and death the importance of this function, especially in the aged, as with all others that can be dispensed with, shrinks into insignificance.

(e) Mortality. Watson* tells us that in 503 total perineal removals there was a mortality of 33, or 6.2 per cent, while in 243 supra-pubic operations there were 28 deaths, or 11.3 per cent. He also states that the mortality in 207 cases treated by catheterization alone was 16, or 7.7 per cent. These deaths occurred within two months after catheterization was begun, and were traceable directly to the use of the catheter. Watson's figures were selected from the work of several operators, and fairly balances the question of mortality as it stands today. Recently Young reports (Jour. A. M. A., Vol. I, P. 519) 103 consecutive operations without a death.

(f) Results. The advocates of the supra-pubic route claim for their operation fewer mishaps, such as fecal and permanent urinary fistulae.

Deaver|* gives for the perineal operation 7.2 per cent such accidents, while for the supra-pubic, 6 per cent.

Watson's||* figures are considerably different. For the

*Annals of Surgery, Vol. XXXIX, page 853.

|*Enlargement of the Prostate, page 210.

||*Annals of Surgery, Vol. XXXIX, page 860.

perineal route he gives the following: Urethro-rectal fistula, 2.7 per cent; urinary incontinence, 3.5 per cent; failure to improve, 7.4 per cent.

In the supra-pubic operation he shows that there is fistula in 1 per cent, urinary infiltration of prevesicle space 1.6 per cent. Also in his series there is one case of peritonitis and also one in whom the rectum was injured (thus showing the possibility of this accident in the supra-pubic operation). Unimproved, 6.7 per cent. It is obvious that an injury to the rectum in the supra-pubic operation would be more disastrous than in the perineal. Watson* gives as results of the two methods, perineal, 88.8 per cent; supra-pubic, 90 per cent improved.

Deaver* quotes these statistics of Watson's as favoring the high operation. It will be readily seen that the higher primary mortality (11.3 per cent) of the supra-pubic, as compared with the perineal (6.2 per cent) more than counterbalances this narrow margin of advantages in the ultimate results.

Finally, we believe that for the reasons that American operators, more than all others, have popularized the perineal route, this method should be, as it is in some foreign countries, termed the American Operation.

A review of the relative advantages of Prostatic approach will, I believe, tend to convince the unprejudiced that the perineal route will continue to grow in favor in the future as the method of choice.

*Annals of Surgery, Vol. XXXIX, page 860.

|*Enlargement of the Prostate, page 210.



PERIODICAL HEADACHES.

(By J. M. Postelle, professor of Gastro-intestinal Diseases, Epworth University Medical Department.)

✓ This subject, perhaps, is the least understood of all the common ills that affect the human family. The exact condition or factor in producing the attack is not always the same. The agent or toxine producing the condition may have, at all times, the same physiological action, and possibly does, but it seems that the location of absorption has something to do in shaping the clinical symptoms.

Whatever the agent is, and I will take the stand that it is a toxine or ptomaine of some definite composition and constant physiological action, it disturbs or poisons the vasso-motor nervous system to the extent that circulatory changes take place in the blood which causes the attack of pain and paints the clinical picture which in nearly all cases is so well defined.

I will not attempt to venture an opinion as to the chemical composition of this toxic agent, but in following the physical characteristics the symptoms and the ease with which the attacks are relieved, I am led to believe, as I have already stated, that it has a definite physiological action.

The first action of the toxine is to raise the blood pressure by stimulating the vasso-motor nervous system, when at its height of stimulation the explosion comes in the way of pain which is caused by a congestion in the pia and dura mater, in which location is the seat of pain.

This might well be called the first stage of its physiological action, and if it was a drug or the active principle of some medicinal agent, we would call it its therapeutical action.

We will then call this the first or prodromal stage up to where the pain is well established. If the dose is not too large the symptoms may stop here, but as a rule it does not, and goes farther and manifests its true physiological action or toxic effect by bringing about a depression and the lowering of the blood pressure. The patient is almost bled to death within his own vessels. The blood seeks its level, the abdominal vessels are dilated and distended with blood, the vasso-motor nerves are paralyzed and dilation of the vessels are complete. The extremities are cold, pupils dilated and pain in head intense.

*Read before the Oklahoma County Medical Society, February, 1908.

The blood pressure is so lowered that the pulse at wrist is almost imperceptible, while the rate is usually not much affected. Nausea and vomiting usually occur and if the absorption has been from the stomach speedy relief is given by the removal of the stomach contents.

The physiological action is proven to be of short duration by the fact that very soon after the stomach is emptied the pain is relieved and the blood pressure returns to the normal. Moreover, if the absorption is from the intestines the attacks are longer, owing to the fact that it takes longer to empty the intestines than it does the stomach.

The careful practitioner, as a rule can tell from what part of the digestive tract the absorption is taking place by local examination, patient's symptoms and the location of the pain in the head. If the pain is more intense in the occipital region and is diffused the absorption is from the stomach, and in this class more nausea and vomiting is present. If the pain is frontal the absorption is from the intestines and is usually accompanied with but little nausea and vomiting. As a rule constipation is present when the absorption is from the intestines, and indican is always present in the urine. Fermentation and nausea where the stomach is at fault. Most all cases of this class are of a neurotic temperament, and back of it all a poorly developed nervous system.

That system, whatever it is, that controls absorption, whether it be vasso-motor, sympathetic or some agent within the epithelial cells lining the vili, lacks in some of the elements of resistance and lets through its doors toxic agents which cause pathological disturbances that well developed nervous systems will not allow; this statement of facts I have repeatedly proven in the treatment of these patients.

I will give in detail two patients whom I have treated and who represent the two types:

Mr. T. Age 28. Admitted October 31st. Married. Farmer. Father and mother living, both of neurotic temperament; mother has frequent attacks of headaches of frontal location, has had hysterical coma during several attacks. Patient gives history of having had periodical attacks of headaches since a small boy, and for the past five years the attacks have become more frequent, averaging almost one a week. Patient states that he usually spends one day in bed during the attack. Pain is always frontal, with slight constipation. Patient suffers most of the time with cold hands and feet. Physical examination re-

veals nothing but low blood pressure and slight cyanosis. The chemical analysis of stomach contents after a test meal reveals nothing abnormal. Microscopical examination of feces shows abundance of fat, but no starch granules. Patient was put on a simple diet containing a normal amount of proteid, sugar and butter fat. Was given, every third day for fifteen days, a colon-clavage of a normal salt solution of about four quarts at a temperature of about 120 degrees F.; then one treatment a week for three weeks when the treatment was discontinued until January 2d, when he had a slight attack and was given one more treatment. He has remained well ever since the first treatment, except the slight attack mentioned. He now eats most everything he wants and feels perfectly well.

Cace No. 2. Mr. P. Admitted December 17th. Age 42. Merchant. Family history negative. Has had periodical attacks of sick headache for many years. Attacks come on three or four times a month and are preceded from a few hour to a day or two with dizziness, fermentation of the stomach and slight nausea, until a diffused pain in the head develops and he is prostrated until vomiting is established, when the pain is soon relieved. Patient then suffers for several days with indigestion and has to refrain from eating almost anything for two or three days, or the headache returns. Chemical analysis of stomach contents shows considerable reduction in the normal amount of free hydrochloric acid, with a trace of lactic acid. Feces normal. Patient was put on a Schmidt diet and but two meals a day for two weeks. Gastric lavage was practiced once a day for about ten days; then every other day ofr ten days more. Since then he has been receiving one treatment a week. Patient has had no attack since beginning of treatment. He is now eating most anything he wants, but still eats but two meals a day. Headache gone.



PROCEEDINGS OF THE HOUSE OF DELEGATES.

Sulphur, Okla., May 12, 1908.

House of Delegates convened at 8 o'clock p. m. Called to order by the President, Dr. C. S. Bobo, with the Secretary, Dr. E. O. Barker, present. Minutes of the last meeting dispensed with.

On motion the following Committee on Credentials was appointed: Drs. A. K. West, N. H. Lindsay and J. D. Batson.

A recess was taken to give the Committee on Credentials time to prepare the list of Delegates.

House called to order and the committee reported the following delegates entitled to seats in the house.

Alfalfa County, J. H. Medaris; Atoka County, J. B. Clark; Adair County, Jos. A. Patton; Bryan County, Jas. L. Shuler; Beckham County, J. C. Helf; Blaine County, J. L. Campbell; Caddo County, Chas. R. Hume and O. T. Robinson; Creek County, C. S. McCallum; Cleveland County, M. T. J. Capshaw and Robt. E. Thacker; Carter County, Walter Hardy; Grady County, Chas. P. Brown; Garfield County, J. H. Barnes and Geo. A. Boyle; Garvin County, N. H. Lindsay; Hughes County, J. W. Robertson; Johnston County, T. W. Stallings; Jefferson County, A. R. Lewis; Kay County, O. T. Morey; Kingfisher county, J. A. Overstreet; Lincoln County, W. G. Bisbee; Love County, J. D. Batson; Marshall County, John A. Haynie; McIntosh County, A. B. Montgomery; McClain County, G. M. Tralle; Murray County, Milo M. McKeller; Muskogee County, C. E. Bryant; McCurtain County, A. S. Graydon; Oklahoma County, A. W. White, A. K. West and U. L. Russell, Osage County, J. J. Fraley, Ottawa County, R. H. Harper; Pittsburg County, R. I. Bond; Pottawatomie County, J. M. Trigg and J. R. Shive; Stephens County, L. J. Cranfill; Sequoyah County, A. E. Hart; Tulsa County, R. S. Wagner.

On motion the report of the committee was accepted and the delegates seated.

Report of Council received as follows:

Report of Committee on Medical Journal:

To the House of Delegates:

Gentlemen: Your Committee on Medical Journal beg leave to report as follows:

First. That, in accordance with the decision of the House of Delegates at the last meeting at Shawnee, a Medical Journal be established, to be known as The Journal of the Oklahoma State Medical Association, the first issue to come out about June 1, 1908, and the Secretary, Dr. E. O. Barker, shall edit this issue, under the supervision of the Council, and the expenses of the same to be paid out of the funds of the Association. That the Secretary be allowed the sum of \$50.00 for the extra work of getting out this first issue.

Second, we recommend that the Secretary also be the Editor of the Journal, and that he be allowed the sum of \$25.00 in

addition to the present salary of the Secretary, and be supplied with a stenographer as necessity demands.

Third, that the offices of Secretary and Treasurer be separated.

Fourth, that the House of Delegates ever bear in mind that when electing a Secretary, that an Editor is also being elected.

The report was accepted and the first section adopted, but the recommendations in the second, third and fourth sections were rejected, and the matter of conducting the Medical Journal left entirely with the Council, as the Constitution provides.

The report of the meeting of the Council, held in Oklahoma City, and called by the President for the purpose of redistricting the State into Council Districts, was here received, and is as follows:

Called meeting of the Council at Oklahoma City, November 19, 1907, for the purpose of redistricting the State into Council Districts.

Council met on a call of the President, in Oklahoma City, November 19, 1907, with the following members present: Drs. G. A. Wall, A. L. Blesh, E. S. Lain, Ney Neel, E. D. Ebright, B. J. Vance, Le Roy Long, H. P. Wilson, E. N. Wright, C. S. Bobo, E. O. Barker and several others.

The redistricting was proceeded with as follows:

First District, Dr. Wall, Councillor, consists of the following counties: Canadian, Oklahoma, Cleveland, Pottawatomie, Seminole, Lincoln and Grady.

Second District, A. L. Blesh, Councillor; Grant, Kay, Osage, Noble, Pawnee, Kingfisher, Logan and Payne.

Third District, E. S. Lain, Councillor; Roger Mills, Custer, Dewey, Blaine, Beckham, Washita and Caddo.

Fourth District, Ney Neel, Councillor; Greer, Kiowa, Jackson, Comanche, Tillman, Stephens and Jefferson.

Fifth District, E. D. Ebright, Councillor; Cimarron, Texas, Beaver, Harper, Woodward, Alfalfa, Ellis, Woods, Major and Garfield.

Sixth District, W. T. Tilly, Councillor; Washington, Nowata, Ottawa, Rogers, Mayes, Delaware, Tulsa and Craig.

Seventh District, B. J. Vance, Councillor; Creek, Wagoner, Cherokee, Adair, Okmulgee, Okfuskee, Muskogee and McIntosh.

Eighth District, LeRoy Long, Councillor; Sequoyah, LeFlore, Haskell, Hughes, Pittsburg and Latimer.

Ninth District, H. P. Wilson, Councillor; McClain, Garvin, Carter, Love, Murray, Pontotoc, Johnston and Marshall.

Tenth District, E. N. Wright, Councillor; Coal, Atoka, Bryan, Pushmataha, Choctaw and McCurtain.

On motion the report was adopted.

The Committee on Public Policy and Medical Legislation reported as follows:

Mr. President and Delegates:

The Committee on Medical Legislation and Public Policy beg to submit to your consideration the following report:

Realizing that in our new State during its formative period was the opportune time to secure legislative enactments in the interests of public health and the regulation of practice, the Committee went to work at once upon the adjournment of the last session of the State Association. An active correspondence was begun with the Committee on Public Policy and Legislation of the American Medical Association with the object in view of securing, for purposes of study and comparison, all the laws now in existence in this country and the civilized world relative to medical practice and the public health. Out of the abundance of material, representing the most intelligent efforts along these lines, we hoped to compile a law that would meet the requirements of the present time in this new and progressive State of ours, and to secure the enactment of the same into law.

In framing a law the committee was compelled by circumstances to bear in mind a few pertinent and obvious facts. First, the limitations fixed by the Constitution; second, the obstacles to be overcome, which had hitherto operated to prevent a successful issue to our efforts; third, these things fully met, then the best possible measure, always bearing in mind the conditions under which we were obliged to do our work—conditions not of our making.

The section of the Constitution authorizing legislation on public health and the licensing of physicians and the creating of a Board of Health are fairly liberal, and are as follows: "Section 39, Article V, Constitution of the State of Oklahoma. The Legislature shall create a Board of Health * * * and shall prescribe its duties. All physicians * * * now legally registered and practicing in Oklahoma and Indian Territories shall be eligible to registration in the State of Oklahoma without examination or cost."

It will readily be seen that in framing a law, we had to bear in mind that there were in the State of Oklahoma, at the time of the advent of Statehood, five schools of medicine legally entitled to practice within the meaning of the Constitutional provision, viz., the regulars, the homeopaths, the eclectics, the physio-medicals and the osteopaths. The last mentioned were legally practicing under a separate act and board. Any law that might aim at outlawing any of these schools, therefore, would be unconstitutional.

The obstacles that had hitherto been successful in defeating satisfactory medical legislation have been twofold: First, lack of harmony within our own organization; second, opposition of the so-called irregular schools of medicine on the outside. There never has been a time in the history of medicine, nor will there ever be, when any committee, however able or well disposed, will be able to frame a law that will please all of even our own school, to say nothing of the others. This fact should be ever in mind when passing judgment upon the work of this committee, regardless of its personnel. The committee has always, in the past, as now in the present, found this to be the greatest hindrance with which it has had to contend. Able physicians, for

whom the members of this committee have the greatest personal regard and respect, have either arrayed themselves openly against them, or "sulked in their tents" when the battle was on, forgetting that mede of loyalty due the men whom they placed on the firing line, and who were not there of their own choice, but by command of the State Association. After years of organization, even here in Oklahoma, and in which work of organization we are sure you will concede that we have done our part, this should not be the case. To these, permit the Committee to suggest that it is, as stated before, impossible for them to compile a law that will suit every one in all of its parts. Such an effort, if one was foolish enough to dream it, would end in a miserable fiasco. Therefore your support should be loyally given to your Committee in the trying time when the fight is on. To these we have to say that you were sadly missed by your brothers out on the firing line—we needed you.

The opposition on the outside has always developed great strength with the ordinary Legislature by simply raising the time-worn battle cry of "Class Legislation."

There has always been a disposition on the part of some very good members of our profession to criticize the Committee because every doctor in the Association was not kept exactly informed relative to every move of the Committee, and also a copy of the proposed law placed in everyone's hands. In reply we will simply call your attention to the fact that there were several reasons why this could not be done. The first, and a very important one, was, that in order to have done so the members of this Committee would have had to devote their whole time to the work and employ a bevy of stenographers. As it was, they devoted over three months of unremitting toil, taken, I know in my own case, mostly out of our hours of rest. Second, on the checkerboard of events, the pieces were being moved rapidly, so that many times twenty-four hours sufficed to change the whole situation. This was also true of the measure, the first copy of which, drafted in my office, was changed and rewritten many times and many typewritten copies made. The amount of work this threw upon the Committee was enormous. Copies were sent to all the Councilors and members of the Committee, with a request for suggestions, and a meeting of the Council was called, we think, in November, 1907, to consider this matter, along with the redistricting of the State in accordance with the new arrangement of counties.

Also, the complaint was made by reputable members of the Association that this was a one man business. In answer to this assertion we will say that it will require no stretch of the imagination or the memory of those here today to recall the fact that we have, at every recent session of this Association, in its House of Delegates, urged strenuously the consideration, section by section, of such a law as it desired the Committee to get behind and support, but we were always met with the objection that there was no time, and that this matter should be attended to by the Committee itself. We insisted that in previous at-

tempts we always found that when the time for action had come and the Legislature was in session, that all of our attempts, made in the utmost sincerity of purpose, were cross-fired on by our own friends. It was in view of this past experience that we were so insistent upon the House giving us the finished product that we might feel that we had the consensus of opinion of what was really desired.

At the meeting of the Council and Legislative Committee above mentioned, which occurred in the parlors of the Lee Hotel at Oklahoma City, both bodies placed the matter, together with the measure agreed upon, in the hands of our worthy President, Dr. C. S. Bobo, with power to act for all of us and to command us, and to summon a meeting at any time, anywhere, of the Committee. We felt that, aside from our own confidence in his ability and integrity, the Association had also expressed their confidence in and esteem for him by electing him to the highest office within its power to give. From this time on, the Committee acted under the President's command and, personally, as a member of that Committee, I desire to bear witness to the devotion and self-sacrifice made by him in the cause.

December 12th, in response to a call originating with the eclectics, a meeting was held at the Lee Hotel, in Oklahoma City, of your Committee, in conjunction with committees representing the homeopaths, eclectics, physio-medicals and the osteopaths, to endeavor to harmonize the hitherto existing differences that had always militated effectively against our securing satisfactory legislation. In this way we hoped to present a united front to the Legislature. This fact of harmony, both within and without our organization, together with reasonable demands on our part, we felt, would insure their realization.

After a day of hard work we succeeded in uniting without in any way emasculating the measure that your Committee had previously formulated. Practically the only change made was in the personnel of the Board, representation upon the Board for each school represented at this conference being allowed in such a manner that a board of thirteen should be created, so that no one school should ever be permitted a majority of the whole Board. All agreeing that the applicants of their schools should be required to pass the same examination in the fundamentals before the whole Board, and in the special therapeutics, each to be examined by the members of the Board representing his particular school. Thus was accomplished a union of forces in the interest of higher medicine, never before accomplished in the history of medicine in this country or the world.

To our shame it must be said that throughout the bitterly waged battle that followed our brethren of the so-called irregular schools stood loyally and unflinchingly to their agreement and also held their schools behind them. All the opposition emanated from our own school.

In the meantime Senator Franklin had introduced a bill and had advanced it to the second reading in the Senate, and upon his invitation, very kindly and courteously extended to the joint

committees, a conference was arranged with him. At this meeting, at which representatives of all the schools of practice enumerated above were present, Senator Franklin generously offered to amend his bill, so as to make it agree in all particulars with our conference measure. This was done, and accordingly your Committee, together with the committees of the other schools, got behind the bill as the State Association measure, and called upon the membership as a whole to support us. We believed then, and do now, that in that measure was the sum of all that it was possible to attain in the way of legislation at this time. Upon any other measure, however ideally perfect it might be, we well knew that we would meet with the hearty opposition of all the other schools represented at the conference. Upon no other measure was it possible for us to unite the opposition on the outside which had hitherto successfully opposed us. The measure itself was intrinsically good.

Close upon this time the newly appointed State Board of Health called a meeting at Muskogee of the Board and their newly appointed County Health Officers. The meeting of the Board was for the purpose of examining applicants to practice medicine in the State, that of the County Health Officers was for the purpose of organizing them for political purposes and then to consider matters legislative as they affected the profession. Believing at this time that such an organization would be wielded by its promoters in harmony with the Committee of the State Association, and realizing the importance of having it do so, your Committee, represented by the writer and Dr. Bobo, attended this meeting and the evening before had a long conference with the members of the State Board. The next day the writer was offered the opportunity, and had the pleasure, of presenting the matter to the organized body of County Health Officers, and took the State Association measure up with them seriatim, meeting with very little opposition. The writer left the meeting and went home believing the matter settled and that the Board, with its organization, would be with us in the approaching movement. Judge of his surprise when, later, Dr. Bobo informed him that we might look, not only for no help from them, but for bitter opposition.

At this time the Board represented to the Committee that the Governor was opposed to a Board of thirteen members, as provided for in our measure, and that, if passed, such a measure would not secure his approval. Whereupon we offered to cut the number down to seven, with the school representation the same. Many times thereafter we offered in every way consistent with the trust committed to our care by you; to compromise the matter. They expressed a firm determination to have the Medical Practice Act and the health portions of the bill separated. To meet this we offered to do so with the Franklin Bill, but they would not, through Senator Williams, their representative, accept this. It seemed there was no reasonable ground upon which we could meet in common without entirely surrendering the authority placed in our hands by you, to a body of men in no way

responsible to this Association, and of whom, officially, the Association had no knowledge whatever. We well realized the strength of the political machine organized by the Board, and desired in every honorable way to secure their help, but with our compact on the one hand and their demands so opposite on the other, we found this absolutely impossible. We found the County Health Officers, in most instances, willing to obey the commands of the Board, while the general profession was either indifferent or openly opposed following a chimera of legislation utterly impossible of realization in this State at this time.

Later, the Joint Committees had a conference with Governor Haskell, and the Governor declared himself in harmony with the measure as explained to him, even to the Board of thirteen, and further stated that, previous to this meeting, he had not expressed himself on the matter to any person, and had authorized no one to speak for himself in the matter. Evidently the Board was laboring under a misapprehension when they assured us so positively of his opposition. A conference with Speaker Murray was also held the same evening, and he also assured us that the measure met with his approval and that he could not find anything in it to oppose, outside of a few minor details which we readily accepted. This same evening we held a meeting with the Senate Committee on Health and Public Sanitation, and at this meeting each one of the schools, through their representatives, requested and insisted that this Senate Committee support the Franklin Bill, and not the Williams Bill and Johnson Bill, which were the State Board measures. The five schools, through their spokesmen, declared to the Committee that upon no other ground would they support any measure. While at this meeting, a member of the State Board of Health telephoned the Senate Committee to withhold all support or action, as he would be over the next day and oppose all that was being done by the representatives of the schools.

We had now spent much time and labor in an honest endeavor to discharge the duty laid upon us by this Association—had done, in fact all that it seemed possible for us to accomplish.

The Board immediately, now, got to work, through their County Health Officers, bombarding the House and Senate with telegrams and telephone messages in approval of the Williams and Johnson Bills and in opposition to the Association measure, the Franklin Bill. A political machine of this kind can always be wielded effectively, either for or against a measure, and your Committee had earnestly hoped to enlist it in our favor, but the reasons for our failure so to do have been given in full above. The Board seemed to have an abundance of both time and money to expend, and your Committee did not feel that it would be proper for it to engage in a combat that would entail great expense upon the Association or that would be conducted upon the lines that such a fight would naturally follow. A personal fight was far from our thoughts and inclinations. Such would have ended in a bitter factionalism that would have rent the Association and would not then have been productive of results.

This sort of an internecine war would have resulted disastrously to the organized profession and would have bred enmity that time would never have effaced and from which we would have emerged with nothing of positive value. Since results were impossible of attainment we felt that this undesirable end should be arrived at as cheaply as possible. The ranks of our profession were being torn by dissension, and the dream of a compact body of men working harmoniously together with the single purpose in view of the greatest good to the greatest number, entertained by your Committee, was again shattered.

We regret to report that, while in the beginning the campaign for a better condition of things in the State was opened under such favorable auspices, we find ourselves unable to report any real progress made. The pity of it is that this negative result is not because of an incompetent or venal Legislature, but, rather, let us take the lesson to heart that it is due to our own faults of disunion and insubordination. Let us firmly resolve that this campaign shall be but the preliminary skirmish, the prelude to a grand campaign, when we shall rise high enough and be big enough to appreciate the fact that the only way we can ever hope to realize any real success is to recognize that in this fight there are engaged others who are only too glad to be recognized as allies, and who have proven by the loyalty with which they stood to their agreement and their fidelity in standing up for a measure that we ourselves must recognize as a good one, that they are at least worthy of our confidence. Whether we are willing to recognize it or not, they are legally in the field, and it seems to the Committee that it will be better to have them with us in support of a good measure than against us, each fighting for a separate Board. All of us recognize the bad state of affairs consequent upon a multiplicity of Boards. In this case a high standard is impossible. In point of fact we will have as many standards as we have Boards.

(Signed)

A. L. BLESCH,
Chairman.

C. S. BOBO,
G. A. WALL,
LE ROY LONG,
E. O. BARKER.

On motion, the report was received, adopted and the Committee discharged. A vote of thanks was extended to the Committee for the faithful work performed.

The House adjourned.

E. O. BARKER, Secretary.
May 13, 1903.

House of Delegates convened at 9:15 a. m., called to order by the President, with the Secretary present.

Moved and seconded that the section on Eye, Ear, Nose and

Throat meet in adjoining hall, after scientific session is organized.

There being no further business, the House adjourned.

E. O. BARKER, Secretary.

House of Delegates convened at 1:30 p. m., with the President in the chair and the Secretary present.

The Committee on Revision of the Constitution was granted further time.

The President announced that the County Secretaries would meet in the adjoining hall at 7 o'clock p. m.

There being no further business, the House of Delegates adjourned.

E. O. BARKER, Secretary.

House of Delegates convened at 7:30 p. m., with Dr. Bobo, the President, in the chair, and the Secretary present.

On motion a Committee on Credentials was appointed as follows, and requested to be ready to report at the convening of the House of Delegates on the morning of the 14th: Drs. A. K. West, J. D. Batson and B. J. Vance.

House adjourned.

E. O. BARKER, Secretary.

May 14, 1908.

House of Delegates convened at 8 a. m., with the President in the chair and the Secretary present.

Committee on Credentials reported the following delegates present and entitled to seats: Adair County, Jos. A. Patton; Alfalfa County, J. H. Medaris; Atoka County, J. B. Clark; Beckham County, J. C. Helf; Bryan County, J. L. Shuler; Caddo County, O. T. Robinson and Chas. R. Hume; Canadian County, F. H. Clark; Choctaw County, R. J. Shull; Carter County, C. F. Sullivan and T. S. Booth; Cherokee County, W. G. Blake; Cleveland County, M. T. J. Capshaw and R. E. Thacker; Comanche County, D. A. Myers; Craig County, M. C. Adams; Garfield County, J. H. Barnes and Geo. A. Boyle; Grady County, Chas. P. Brown; Greer County, T. J. Dodson; Hughes County, I. N. Robertson; Jefferson County, A. R. Lewis; Johnston County, T. W. Stallings; Kingfisher County, N. Rector; LeFlore County, C. E. Riggins; Lincoln County, H. M. Williams; Logan County, W. W. Rucks; Love County, J. D. Batson; Marshall County, John A. Haynie; McCurtain County, A. S. Graydon; McIntosh County, A. B. Montgomery; McClain County, G. S. Barger; Murray County, Milo M. McKeller; Muskogee County, J. H. White; Noble County, T. F. Renfrow; Oklahoma County, A. W. White, A. K. West and U. L. Russell; Okmulgee County, J. E. Bircaw; Osage County, J. J. Fraley; Ottawa County, R. H. Harper; Pawnee County, J. Q. Newell; Payne County, J. B. Murphy; Pittsburg County, T. S. Chapman; Pottawatomie County, J. M. Trigg, J. C. Mahr and J. R. Shive; Stephens County, J. E. Harbinson; Se-

quoyah County, A. E. Hart; Tulsa County, C. L. Reader and R. S. Wagner; Washington County, F. R. Sutton.

Report of Committee adopted and delegates seated.

On motion, the House proceeded with the election of officers.

Moved and carried that an informal ballot be spread for President. Ballot resulted as follows: Dr. B. J. Vance received 25 votes, Dr. Floyd E. Waterfield received 21 votes, Dr. Le Roy Long received 10 votes, Dr. W. C. Bradford received 6 votes, Drs. R. H. Harper, A. L. Blesh and C. S. Bobo, 1 vote each. On motion, the one receiving the lowest number of votes was dropped. The first formal ballot resulted in the election of Dr. B. J. Vance by the following vote: Vance 35, Waterfield 28.

Moved and carried that a ballot be taken for three Vice Presidents, and the three securing the highest number of votes be declared elected, the one receiving the most votes to be First Vice President, the one receiving the next highest number to be Second, and the one receiving the next highest to be Third.

The first ballot resulted in the election of Dr. Floyd E. Waterfield, 42 votes; Dr. Walter C. Bradford, 23 votes, and Dr. Le Roy Long, 18 votes, with the balance of the votes scattered among several other candidates.

On motion, an informal ballot was spread for Secretary-Treasurer, which resulted as follows: Dr. E. O. Barker, 30 votes; Dr. A. D. Young, 23 votes; Dr. Claud Thompson, 6 votes; Drs. E. D. Ebright and Chas. P. Brown, one each.

The first formal ballot resulted in the election of Dr. E. O. Barker, with 33 votes, and Dr. A. D. Young, with 28 votes.

On motion, a vote was taken for two delegates to the American Medical Association, for the sessions of 1909 and 1910, which resulted in the election of Drs. C. S. Bobo and U. L. Russell by the following vote: Dr. Bobo 37, Dr. Russell 35, Dr. J. A. Walker 10, and Dr. Stalper 9.

The place of the next meeting was taken up, and the following places were put in nomination: Oklahoma City, by the Woman's Auxiliary; Chickasha, Muskogee and Guthrie. Oklahoma City received 31 votes, Muskogee 19, Chickasha 9 and Guthrie 1. Oklahoma City having received a majority of all votes cast, was selected as the next place of meeting. The meeting will be held May 11, 12 and 13, 1908.

Dr. M. M. Linely was elected to succeed himself as a member of the Committee on Necrology.

Dr. A. K. West, of Oklahoma City, was elected a member of the Committee on Education.

Councillors were elected as follows: Fourth District, Dr. E. B. Mitchell, Lawton; Sixth District, Dr. F. R. Sutton, Bartlesville; Seventh District, Dr. C. A. Thompson, Muskogee; Tenth district, Dr. E. N. Wright, Olney.

A vote of thanks was extended to Dr. C. S. Bobo, the outgoing President, for his able administration of the office for the past year, also to the Woman's Auxiliary for their presence and valuable assistance, and a cordial invitation was extended to them to continue in the good work.

A resolution thanking the physicians and their wives and the citizens of Sulphur for their hospitable entertainment while in their city, was passed by a unanimous vote.

There being no further business, the House of Delegates adjourned.

E. O. BARKER, Secretary.

COUNCIL PROCEEDINGS.

Sulphur, Okla., May 12, 7:30 P. M.

Council convened and was called to order by the Chairman, Dr. A. L. Blesh, and Dr. B. J. Vance was elected Secretary.

The following councilmen were present: Drs. A. L. Blesh, E. S. Lain, B. J. Vance, E. N. Wright, E. D. Ebright and H. P. Wilson.

On motion expense accounts of councilmen were allowed as follows: E. D. Ebright, fifth district, \$22.17; E. N. Wright, tenth district, \$3.25; H. P. Wilson, ninth district, \$17.40; E. S. Lain, third district, \$14.85; A. L. Blesh, second district, \$31.20; B. J. Vance, seventh district, \$16.60; G. A. Wall, first district, \$5.91; Ney Neel, fourth district, \$17.40.

On motion, Dr. W. T. Salmon, holding a proxy from Dr. Wall, councillor of the first district, was seated in the Council for the present meeting.

On motion the Council recommends that a charter be granted to a society organized in Roger Mills, Custer and Beckham Counties, and known as the County Society of Custer, Beckham and Roger Mills.

Report of Committee on Public Policy and Medical Legislation was presented by Dr. A. L. Blesh, Chairman of that committee, and was adopted.

Council adjourned.

May 13, 1908, 9 A. M.

Council convened with the following councilors present: Drs. Blesh, Vance, Wright, Ebright, Ney Neel, E. S. Lain.

On motion the Council recommended that the annual per-capita to the State Association be raised from \$1.50 to \$2.00, the constitutional limit, to be effective after 1908.

Council adjourned.

May 14, 1908.

Council convened at 8 a. m., with the following councilmen present: Drs. Blesh, B. J. Vance, E. N. Wright, E. D. Ebright, H. P. Wilson, E. S. Lain and Le Roy Long.

The appeal of Dr. S. E. Knight of Shawnee, from the action of the Pottawatomie County Medical Society, was taken up, and on motion, the action of the Pottawatomie County Society in refusing Dr. Knight membership in said society was sustained.

Dr. E. O. Barker was elected Editor of the Journal of the Oklahoma State Medical Association, and his salary as Editor

fixed as follows: \$50:00 for the first month, and \$25.00 for each month after the first, and be allowed a stenographer when necessary.

The account of Dr. B. J. Vance, member of the Educational Committee, for \$40.05, for actual expenses incurred in attending the meeting of the National Committee on Education, in Chicago, April 13, 1908, was allowed, and the Secretary-Treasurer was ordered to pay same.

The committee appointed to audit the accounts of the Secretary-Treasurer reported as follows: We, the Auditing Committee, have audited the accounts of the Secretary-Treasurer and find the same correct.

E. D. EBRIGHT,

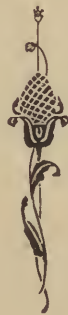
LE ROY LONG,

NEY NEEL,

Committee.

The Council then proceeded to elect Dr. A. L. Blesh as Chairman, and Dr. Le Roy Long, Secretary of their body for the ensuing year.

Council adjourned sine die.



Journal of the Oklahoma State Medical Association

E. O. BARKER, EDITOR-IN-CHIEF.

ASSOCIATE EDITORS AND COUNCILLORS.

G. A. WALL, Oklahoma City.

A. L. BLESCH, Oklahoma City.

E. S. LAIN, Weatherford.

E. B. MITCHELL, Lawton.

E. D. EBRIGHT, Carmen.

F. R. SUTTON, Bartlesville.

C. A. THOMPSON, Muskogee.

LE ROY LONG, McAlester.

H. P. WILSON, Wynnewood.

E. N. WRIGHT, Olney.

Application made for entrance at 'h' Post-office at Guthrie, Oklahoma, as second class mail matter

This is the Journal of the Oklahoma State Medical Association, and every member is entitled to a copy every month; and if any member does not receive his Journal promptly, the matter should be immediately reported to this office.

Communications of all kinds should be addressed to the Editor.

SALUTATORY.

In assuming the management of the Journal of the Oklahoma State Medical Association, we realize that we are entering upon a very important responsibility, that of pleasing over a thousand owners, as every member of the State Association is a part owner of the Journal. However, don't think for a moment that we presume to be able to please all of you,, for if we please a respectable majority it is about as much as should be expected of us.

Many of you will, no doubt, remember the old Oklahoma Medical Journal, which we established and published for a period of nine years with a degree of success, but that was purely a personal enterprise, and we did not feel under any special obligations to others, as is the case in our present undertaking.

There have been secured quite a few advertisements, considering the time of the year, when the advertisers are not making their usual annual contracts, and we hope that none of it will be objectionable to any of you. We are not of the kind who believe that the editorial management of a periodical should be blind to what the advertising pages contain.

The Journal will be conducted along strictly ethical and proper lines, as we understand the conditions, always, of course, with the advice of the Council, which the Constitution makes the

publication committee, and will never be used to either reward our friends or punish our enemies.

We shall be pleased to have the advice of our friends at any time, and court the honest criticism of the members of our Association. We ask all to withhold judgment on our efforts until several numbers of the Journal shall have been issued, in order that we may have time to get rightly into the harness again, after six years, and over, of a recess.

We are just leaving for a month in Chicago, where we will attend the annual meeting of the American Medical Association; also a meeting of State Secretaries and Medical Editors, from which we expect to gain a great deal of useful information which can be utilized in our work hereafter.

Again asking your patient indulgence, we are

Most fraternally yours,

E. O. BARKER.

EDITORIAL NOTES.

Roger Mills County has recently been reorganized, with Dr. J. A. Gregoire, of Cheyenne, as Secretary.

Choctaw County has been organized, but no official report has yet been secured by the State Secretary.

It is desired that every member will report to the Journal all news items, such as removals, new comers, marriages or deaths in the medical profession of the State.

It is desired that the Secretaries of the County Medical Societies send in reports of the various meetings of their societies, in order that all may keep informed regarding the status of organization of our profession throughout the State.

Judging from the comments on the medical legislation passed by the recent legislature, by the physicians who were members of the lower house of that body, we fear that we are no better off, if as well, as we were under the old territorial law. However, judgment will be reserved until we can get a copy of the new law, and have had time to digest it.

The laws on public health and medical practice will be printed in the Journal as soon as possible.

The State Association furnishes the County Societies with the necessary blanks, Constitutions and By-Laws and cards for keeping the records by the card index system, with a filing case for keeping the same. In asking for supplies, please state what kinds are wanted, and the number of each kind needed, so that only the amounts really needed will be sent out. As there is, necessarily, quite an expense connected with the furnishing of supplies. We are publishing the names of the Presidents and Secretaries of the County Societies that have been reported to us up to the time of going to press with this issue, and additions will be published as they are received.

Following the list of officers of County Societies is a roster of the membership of our State Association, as we have it, and we ask all who may discover mistakes or omissions in the list to call our attention to them, that we may promptly correct the same.

CARTER COUNTY SOCIETY MEETING.

The second quarterly session of the Carter County Medical Society will convene in Ardmore on June 16th, when the section on Surgery will give a full program, and a splendid clinic will be a feature of the meeting. Six strong papers and some very interesting surgical cases will be on hand. Dr. Walter Hardy, Chairman, and Dr. Robt. H. Henry, Secretary.

It will be an all day and a night session, and light refreshments will be served, and a good time is expected.

Officers of County Societies.

County.	President.	Address.	Secretary.	Address.
Adair.....	T. P. Allison,	Westville.	C. M. Robinson.....	Stillwell
Alfaifa			F. K. Slaton.....	Helena
Atoka.....	W. A. Logan,	Lehigh.	L. S. Willour.....	Atoka
Beckham...			Harry O. Jones.....	Elk City
Blaine.....	N. P. H. White,	Watonga	J. L. Campbell.....	Watonga
Bryan			D. Armstrong.....	Mead
Caddo			Chas. R. Hume.....	Anadarko
Canadian.....	R. E. Runkle,	El Reno.	R. F. Koons.....	El Reno
Carter.....	R. S. Willard,	Brock.	A. E. Ballard.....	Lone Grove
Cherokee			W. G. Blake.....	Tahlequah
Cleveland..	M. T. J. Capshaw,	Norman	W. L. Capshaw.....	Norman
Comanche			David A. Myers.....	Lawton
Craig	D. B. Stough,	Vinita	Louis Bagby.....	Vinita
Custer			C. A. Thomas.....	Weatherford
Delaware...	B. F. Collins,	Needmore	R. L. Caldwell.....	Grove
Garfield			J. H. Barnes.....	Enid
Garvin.....	H. P. Wilson,	Wynnewood	N. H. Lindsay.....	Pauls Valley
Grady.....	J. E. Stinson,	Chickasha	G. H. Thrailkill.....	Chickasha
Grant			D. D. Roberts.....	Nashville
Greer			Porter Norton.....	Mangum
Hughes.....	A. M. Butts,	Holdenville	H. A. Howell.....	Holdenville
Jackson.....	D. C. Buck,	Eldorado	Emory S. Crowe.....	Olustee
Jefferson....	W. A. Wilson,	Waurika	A. R. Lewis.....	Ryan
Johnson...W. W. Vannoy,	Tishomingo		W. B. Reeves.....	Wapanucka
Kingfisher...	Ira G. Stone,	Kingfisher	Chas. W. Fisk.....	Kingfisher
Kiowa.....	G. W. Stewart,	Hobart	John K. Dale.....	Hobart
Latimer			H. G. Dalby.....	Wilburton
LeFlore.....	B. H. Woodson,	Monroe	R. L. Morrison.....	Poteau
Lincoln.....	W. G. Bisbee,	Chandler	W. H. Davis.....	Chandler
Logan.....	C. S. Petty,	Guthrie	R. V. Smith.....	Guthrie
Love			J. D. Batson.....	Marietta
McClain.....	G. S. Barger,	Wayne	G. M. Tralle.....	Purcell
McCurtain....	A. S. Grayden,	Idabel	W. B. McCaskill.....	Idabel
McIntosh.....	G. W. West,	Enfauila	A. B. Montgomery.....	Checotah
Marshall.....	T. A. Blaylock,	Madill	John A. Haynie.....	Aylesworth
Mayes			Carl Puckett.....	Pryor Creek
Murray			G. W. Slover.....	Sulphur
Muskogee...	Sessler Hoss,	Muskogee	S. W. Aiken.....	Muskogee
Okfuskee			Benton Lovelady.....	Okemah
Oklahoma...W. T. Salmon,	Oklahoma		L. J. Norman.....	Oklahoma
Oklmulgee...	H. E. Breese,	Henryetta	Warren Newel.....	Oklmulgee
Osage.....	Ira Mullins,	Hominy	H. E. Reece.....	Hig Heart
Ottawa.....	L. W. McWilliams,	Afton	R. H. Harper.....	Afton
Payne			S. M. Barnes.....	Stillwater
Pittsburg....	J. W. Smith,	McAlester	Wm. Fowler.....	Alderson
Pottawatomie..	J. A. Walker,	Shawnee	W. O. Bradford.....	Shawnee
Rogers			Caroline Bassman.....	Claremore
Sequoyah.....	P. C. Conn,	Gans	A. E. Hart.....	Sallisaw
Stephens			S. H. Williamson.....	Duncan
Texas.....	James McMillin,	Tyrone	R. B. Hayes.....	Guymon
Tillman.....	V. P. Priestly,	Frederick	Jas. D. Osborn, Jr.....	Frederick
Tulsa.....	R. S. Wagner,	Tulsa	C. T. Hendershot.....	Tulsa
Washtn...G. F. Woodring,	Bartlesville		Fred C. Sheets.....	Bartlesville
Washita.....	A. M. Sherburne	Cordell	A. H. Bungardt.....	Cordell
Woods.....	J. A. Bowling	Alva	Elizabeth Grantham.....	Alva
Woodward...	D. H. Patton,	Woodward	O. A. Pierson.....	Woodward

Members of the State Association

Whose per capita for 1908 has been received by the State Secretary.
Kindly report any mistakes found in this list to the Secretary at once.

Anderson, Fred, Claremore
Adams, A. C., Shawnee
Allen, E. N., McAlester
Auken, W. S., Muskogee
Autry, D., Marietta
Ashenhurst, T. E., Waurika
Abernathy, E. A., Hollis
Ambrester, J. C., Chickasha
Anderson, J. B., Enid
Amendson, O. C., Vinita
Angus, H. A., Lawton
Alvis, R. H., Ardmore
Arnold, C. D., El Reno
Austin, J. Lewis, Durant
Allison, J. S., Evansville, Ark.
Appling, J. S. A., Doyle

Anderson, R. M., Shawnee
Applewhite, G. H., Tecumseh
Aaron, W. H., Pawhuska
Adams, J. A., Sulphur
Adams, J. W., Chandler
Austin, C. W., Granite
Antle, H. C., Renfro
Aitke, W. A., Enid
Adams, F. M., Big Cabin
Avery, Amos, Sapulpa
Austin, C. L., Denver
Amerson, G. W., Milo
Anderson, P. H., Anadarko
Ames, H. B., Burlington
Allison, T. P., Westville

Bilby, Geo. N., Alva
Baker, J. C., Port
Bungardt, A. H., Cordell
Brown, Paul R., Tulsa
Bland, J. C. W., Red Fork
Brymar, W. G., Comanche
Barkley, J. P., Comanche
Blickinsderfer, Chas., Shawnee
Ball, W. A., Waunetta
Bradford, W. C., Shawnee
Barton, V. B., McAlester
Buffo, Umberton, Krebs
Barnes, S. M., Stillwater
Breese, H. E., Henryetta
Baird, A. B., Oklahoma City
Bowling, J. A., Alva
Bennett, D. W., Sentinel
Butler, G. H., Jr., Tulsa
Brodie, W. W., Tulsa
Barnes, T. C., Marlow
Bassman, Caroline, Claremore
Bence, F., Burnett
Byram, J. M., Asher
Berry, Thomas, Gowen
Bond, R. I., Hartshorne
Beach, C. H., Glencoe
Bagby, E. L., Fairfax
Bircaw, J. E., Matura
Buchanan, T. A., Oklahoma City
Boyd, W. J., Oklahoma City
Buxton, L. Haynes, Oklahoma City
Burke, Wm. H., Weleetka
Bumbarger, C. C., Paden
Bosley, J. G., Muskogee
Bray, A. H., Lebanon

Bronaugh, J. W., Mounds
Broshears, Jackson, Lawton
Burch, S. T., Norman
Blake, Ed W., Tahlequah
Ballard, A. E., Lone Grove
Booth, J. E., Ardmore
Brown, Hadley C., Okarche
Boyd, D. H., Anadarko
Bradford, C. B., Oklahoma City
Blesh, A. L., Oklahoma City
Board, J. W., Okemah
Bryant, E. E., Muskogee
Barger, G. S., Wayne
Blaylock, T. A., Madill
Beeler, C. A., Burneyville
Barnwell, John T., Overbrook
Barker, E. O., Guthrie
Bilby, J. F., Stroud
Bisbee, W. G., Chandler
Brown, Fred C., Sparks
Brown, W. W., Cameron
Brinks, W. J., Maniteau
Beasley, A., Hobart
Bailey, Crason, Dover
Browning, W. M., Hastings
Buck, Dewitt C., Eldorado
Berry, Virgil, Wetumka
Blendsoe, Martha, Chickasha
Barry, W. R., Bradley
Barnum, T. C., Pauls Valley
Baker, R. L., Wynnewood
Barnes, F. M., Paoli
Boyle, George A., Enid
Ballard, J. D., Sayre
Bagby, Louis, Vinita

Belt, M. D., Isam Springs
 Batson, W. V., Marietta
 Batson, J. D., Marietta
 Bruner, J. R., Navina
 Baird, D. W., Davenport
 Brown, R. A., Prague
 Beasley, W., Bokoshe
 Booth, G. A., Hughes
 Bonham, J. M., Hobart
 Barkley, A., Hobart
 Ballard, C. A., Mannsville
 Blossom, W. R., Waurika
 Butts, A. M., Holdenville
 Barr, J. H., Reed
 Brown, Chas. P., Chickasha
 Baze, R. J., Chickasha
 Bailey, H. C., Wynnewood
 Baze, W. J., Civit
 Burnes, S. L., Hennepin
 Barnes, J. H., Enid
 Bolton, W. D., Clinton

Clapper, E. P., Waynoka
 Conway, W. I., Tulsa
 Clinton, Fred S., Clinton
 Cranfill, L. J., Loco
 Cannon, J. S., Shawnee
 Calhoun, C. E., Sylvian
 Cullum, J. E., Earlboro
 Carter, J. S., Shawnee
 Cone, H. L., Maud
 Cash, J. H., Glencoe
 Colley, K. L., Bigheart
 Cott, W. M., Okmulgee
 Clutter, W. H., Oklahoma City
 Childs, J. S., Purcell
 Colby, J. H., Purcell
 Cotteral, C. F., Guthrie
 Chambers, F. M., Gotebo
 Cullom, A. B., Hennessey
 Covey, Wm. R., Mannsville
 Cantrell, D. E., Waurika
 Cagel, T. J., Wetumka
 Callaway, J. R., Pauls Valley
 Clark, W. A., Wynnewood
 Cotton, L. W., Enid
 Craig, J. W., Vinita
 Clinkscales, A. M., Vinita
 Coopedge, O. C., Bristow
 Curtiss, K. D., Dewey
 Cook, W. A., Tulsa
 Coppedge, C. E., Bixby
 Conger, H. A., Duncan
 Colvert, G. W., Tecumseh
 Carson, F. L., Shawnee
 Cassey, Wm. A. L., Prague
 Clarke, W. S., McComb
 Chapman, T. S., McAlester
 Cooter, A. M., Miami

Dillon, G. A., Dill
 Daly, T. F., Tulsa
 Deen, F. R., Fairland

Bone, J. W., Sapulpa
 Bobo, C. S., Norman
 Blake, G. W., Tahlequah
 Booth, T. S., Ardmore
 Bogie, W. T., Ardmore
 Broadway, Frank W., Ardmore
 Bailey, F. M., Carnegie
 Blair, Samuel, Apache
 Brown, D. D., Apache
 Buchanan, M. W., Watonga
 Brandes, G. C., Omega
 Buschbaum, M., Elk City
 Briggs, F. H., Atoka
 Briscoe, B. J., Cherokee
 Barnes, Calvin C., Westville
 Bradley, A. J., Albany
 Browning, J. W., Geary
 Blender, H., Okeene
 Bates, Frank, Coalgate
 Bassett, N. M., Jett
 Beard, D. A., Westville

Culp, A. H., Beggs
 Clement, Wm. R., Capital Hill
 Carroll, W. B., Welty
 Crenshaw, W. W., Dibble
 Crawley, J. J., Overbrook
 Chambers, A. M., Poteau
 Cavett, Ernest R., Kiel
 Crocker, A. S., Tishomingo
 Cranfill, A. G., Grady
 Crow, E. S., Olustee
 Coryell, M., Chickasha
 Callaway, John, Mescalero
 Cooper, J. M., Enid
 Collins, B. F., Needmore
 Chapman, M. R., Vinita
 Croston, C. G., Sapulpa
 Cannon, R. S., Sterling
 Capshaw, M. T. J., Norman
 Capshaw, W. L., Norman
 Childs, J. W., Noble
 Cox, J. L., Ardmore
 Clark, F. H., El Reno
 Campbell, Bertha H., Anadarko
 Coyle, J. E., Durant
 Clark, J. B., Coalgate
 Cloud, A. S., Kiowa, Kans.
 Campbell, A. X., Lawton
 Clifton, G. M., Stella
 Childs, H. C., Noble
 Clarke, C. B., Ardmore
 Chapman, J. J., Pottsville
 Campbell, Geo. C., Anadarko
 Campbell, Samuel C., Carnegie
 Campbell, J. L., Watonga
 Clark, Z. J., Ingersoll
 Clark, Henry P., Tyrone

Donohoo, J., Afton
 Dicken, W. E., Oklahoma City
 Davis, W. H., Okemah

Dawson, J. R., Fairland
Davis, E. F., Oklahoma City
Day, C. R., Edmond
Dynn, Robert, Davis
Dennison, J. S., Garvin
Duve, C. E., Madill
Duke, John W., Guthrie
Davis, S. O., Kendrick
Dean, S. C., Howe
Dale, John R., Hobart
Davis, John, Oscar
Davenport, A. L., Wecharty
Dawson, D. W., Mangum
Denny, Z. C., Mangum
Darst, John, Paoli
Damrell, C. E., Enid
Davis, J. A., Norman
Duckworth, J. T., Tahlequah
Davis, A. B., Sneed
Dart, L. W., Tulsa
DeMeglio, Edwards, Duncan
Detar, G. A., Narcissa

Ellis, J. B., Shawnee
Edwards, R. T., Oklahoma City
Ellis, L. M., Millerton
Evans, J. J., Stroud
Ewing, F. W., Terral
Ebright, E. D., Carmen
Edgington, A. L., Watonga

Flagg, E. E., Mooreland
French, John T., Tulsa
Fair, J. B., Frederick
Froct, C. E., Duncan
Farrington, C., Shawnee
Friedman, Paul, Stillwater
Fraley, J. J., Hominy
Ferguson, E. S., Oklahoma City
Fuller, J. S., Fort Gibson
Fisk, Chas. W., Kingfisher
Francisco, J. W., Enid
Fife, R. L., Tahlequah
Fowler, O. V., Ctlwell

Grantham, Elizabeth, Alva
Grosshart, Ross, Tulsa
Gray, E. J., Tecumseh
Grubbs, J. O., McAlester
Griffith, Alfred, Albuquerque, N. M.
Gray, Ruth A., Oklahoma City
Gamble, D. C., Alva
Gillis, J. A., Frederick
Grayson, A. T., Shawnee
Gray, John W., Quinton
Graves, W. C., McAlester
Griffith, W. C., Weleetka
Grayden, A. S., Idabel
Gardner, R. A., Marietta
Gray, W. J., Thackerville
Gose, C. O., Hennessey

Dean, J. A., Hickory
Davis, Lee, Kingston
Dunsworth, O. C., Thackerville
Davis, W. B., Prague
Davis, W. H., Chandler
Dalby, H. G., Wilburton
Dye, G. H., Mill Creek
Derr, J. I., Waurika
DeAmen, M. M., Mangum
Dodson, T. J., Mangum
Dodson, W. C., Willow
Diehl, C. H., Purdy
Dunlap, P. G., Lawton
Dunnaway, Jane E., Noble
Denham, Thos. W., Hoxbar
Dick, W. S., Baum
Dail, A. W., Cement
Duncan, Coalgate
Dickey, G. W., Chance
Dinkler, Fred, Fort Cobb
Decker, A. J., Jett
Doughty, Jas. M., Texoma

Evans, T. E., Shawnee
Ellison, Cayfree, Oklahoma City
Erving, F. B., Wellston
Evans, E. L., Wilburton
Edens, M. H., Verden
Earnhart, C. E., Oklahoma City

Ferber, J. E., Oklahoma City
Fiske, Mary Green, Tulsa
Ferguson, J. B., Salisaw
Frie, H. C., Duncan
Ferris, W. W., Moral
Ferguson, L. H., Ottow
Flesher, T. E., Edmond
Fullington, W. A., Oklahoma City
Friedson, C. A., Leon
Fowler, James E., Altus
Fields, R. A., Enid
Fulton, J. F., Atoka
Fitzgerald, M., El Reno

Gray, A. W., Pauls Valley
Garland, H. S., Sapulpa
Gooch, L. T., Lawton
Gehring, N. J., Norman
Goodwin, Geo. E., Ardmore
Goben, H. C., Lehigh
Gaston, J. I., Kingston
Graham, E. F., Marietta
Gardner, B. S., Marietta
Gannaway, C. B., Chickasha
Gossom, K. D., Custer
Groom, V. W., Bristow
Griffen, D. W., Norman
Gelispie, L. D., Springer
Gill, W. W., Gracemont
Crowdenm, S. B., Cherokee

Harns, J. H., Cordell
 Hawley, S. DeZell, Tulsa
 Hudson, V. W., Sallisaw
 Hart, A. E., Sallisaw
 Holliday, J. R., Duncan
 Harbinson, J. E., Alma
 Hays, W. F., Claremore
 Hughes, J. E., Shawnee
 Hudson, W. K., Gowen
 Hughes, Eli, Stillwater
 Harper, R. H., Afton
 Haas, Karl, Harrah
 Howard, R. M., Oklahoma City
 Heldman, M. H., Oklahoma City
 Hilsmeire, Fred K., Weleetka
 Herron, A. W., Adair
 Hartman, T. W., Woodville
 Haynie, John A., Aylesworth
 Hamill, John R., Guthrie
 Hill, C. B., Guthrie
 Hardy, J. J., McCurtain
 Hartshorne, W. O., Spiro
 Harris, W. F., Sentinel
 Hendershot, C. T., Tulsa
 Hunter, W. M., Vian
 Harraway, P. M., Marlow
 Harrison, C. M., Comanche
 Howell, W. T., Duncan
 Henderson, W. E., Shawnee
 Holcomb, John H., Brown
 Harris, A. J., McAlester
 Hitchcock, I. D., Afton
 Hall, R. L., Pawhuska
 Hunter, S. M., Oklahoma City
 Hubbard, W. M., Oklahoma City
 Hall, J. F., Oklahoma City
 Hoss, Sessler, Muskogee
 Hornbeck, H. H., Kingston
 Holland, John L., Madill

Iles, H. C., Prague

Jester, J. A., Foss
 Jackman, J. A., Dawson
 Jones, S. B., Sallisaw
 Jackson, Stonewall, Kiowa
 Janeway, D. F., Stillwater
 Jolly, J. W., Oklahoma City
 Johnson, G. L., Byars
 Jones, W. E., McCurtain
 Jeter, O. R., Reed
 Justice, H. B., Sapulpa
 Johnson, George O., Fort Cobb

Kearny, Wm., Cheek
 Kerley, J. W., Cordell
 Kennedy, S. G., Tulsa
 Keneny, C. F., Duncan
 Kirkpatrick, J., LeFlore
 Knight, W. L., Wenoka
 King, E. W., Bristow
 Kerley, W. R., Anadarko

Hiyine, W. D., Powell
 Hahn, L. A., Guthrie
 Hatfield, W. M., Mulhall
 Hardy, H., Sutter
 Horine, W. H., Wilburton
 Holland, A. W., Hobart
 Hathaway, A. H., Pontotoc
 Hinson, T. B., Altus
 Harris, Chas. H.,
 Huffman, L. H., Hobart
 Hulen, F. P., Pond Creek
 Hottle, W. C., Paoli
 Haines, W. F., Lindsay
 Hunt, T. K., Kieffer
 Hoover, J. W., Sapulpa
 Hues, C. P., Lawton
 Hall, D. C., Norman
 Higgins, H. A., Glenn
 Hathaway, W. G., Province
 Hume, Chas. R., Anadarko
 Helf, J. C., Berlin
 Hayes, R. B., Guymon
 Houseworth, Cashion
 Hankis, L. A., Altus
 Howell, H. A., Holdenville
 Horaley, T. J., Vinson
 Huddle, V. I., Lamont
 Hume, R. R., Minco
 High, V. C., Maysville
 Harington, W. E., Lahoma
 Humphreys, J. R., Bristow
 Hughes, A. R., Manford
 Hoshall, J. L., Franklin
 Hardy, Walter, Ardmore
 Henry, Robert, H., Ardmore
 Hatchett, J. A., El Reno
 Heneke, J. J., Hydro
 Heady, E. E., Jett

Jeter, A. J., Foss
 Jenks, E. E., Glen Pool
 James, Ed. D., Haileyville
 Johnston, P. S., Indianola
 Jones, Fred F., Pawhuska
 Johannes, A. D., Oklahoma City
 Jackson, T. J., Marsden
 Johnson, J. J., Martha
 enkins, S. M., Enid
 Johnson, G. P., Lexington
 Jones, Harry O., Elk City

Kelly, W. R., Watonga
 Kimmons, S. H., Tulsa
 Kelleam, R. T., Sallisaw
 Kuhn, J. F., Oklahoma City
 Kirkpatrick, G. A., Wilburton
 Kelso, M. A., Enid
 Koons, R. F., El Reno
 Kendall, W. L., Durant

- Lafferty, A. M., Chickasha
Lynde, E. S., Okarche
Logan, C. J., Alva
Long, R. L., Beamer
Lee, T. J., Rocky
Layson, C., McAlester
Lee, C. E., Oklahoma City
Leek, J. B., Jennings
LaMott, G. A., Oklahoma City
Langsford, W., Oklahoma City
Love, A. W., Blanchard
Lloyd, H. C., Hobart
Looney, J. T., Tishomingo
Lewis, R. A., Ryan
Lowe, J. W., Holdenville
Little, J. S., Minco
Looney, R. E., Lindsay
Lindsay, J. K., Elmore
Lamerton, W. E., Enid
Lain, E. S., Weatherford
Lyford, O. H., Sapulpa
Lowther, R. D., Norman
Lively, Chas. O., Albany
Levi, M. H., Elk City
Long, T. J., Atoka

Minsell, L. S., Beaver
Morgan, J. H., Tulsa
Mayginnes, N. W., Tulsa
Morris, J. W., Sallisaw
Morris, I. C., Vian
Mahr, J. C., Shawnee
McGee, W. N., Shawnee
McAlister, E. R., Earlboro
Miller, R. S., Hartshorne
Munn, R. A., McAlester
McHenry, D. D., Cushing
McWilliams, W. L., Miami
Mullins, Ira, Hominy
McLeen, G. D., Oklahoma City
Moorman, L. J., Oklahoma City
Meek, F. B., Oklahoma City
Messenbaugh, J. F., Oklahoma City
May, H. A., Okemah
McCullough, J. H., Checotah
McCurdy, W. C., Purcell
McCullough, Checotah
Moreland, W. A., Idabel
McCaskill, W. A., Idabel
McCallum, Chas., Oakland
Martin, A. E., Marietta
Melvin, Elizabeth, Guthrie
Morgan, C. M., Davenport
Mraz, John, Prague
Morrison, F. A., Poteau
McArthur, J. F., Wilburton
Miller, W. W., Gotebo
Mullinix, C. S., Petersburg
Maupin, C. M., Waurika
May, J. W., Headrick

Lewallen, W. P., Canadian
Lancaster, L. T., Avard
Linney, R. Z., Hopeton
Long, Dock, Duncan
Long LeRoy, McAlester
Lehew, J. L., Pawnee
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Long, R. D., Oklahoma City
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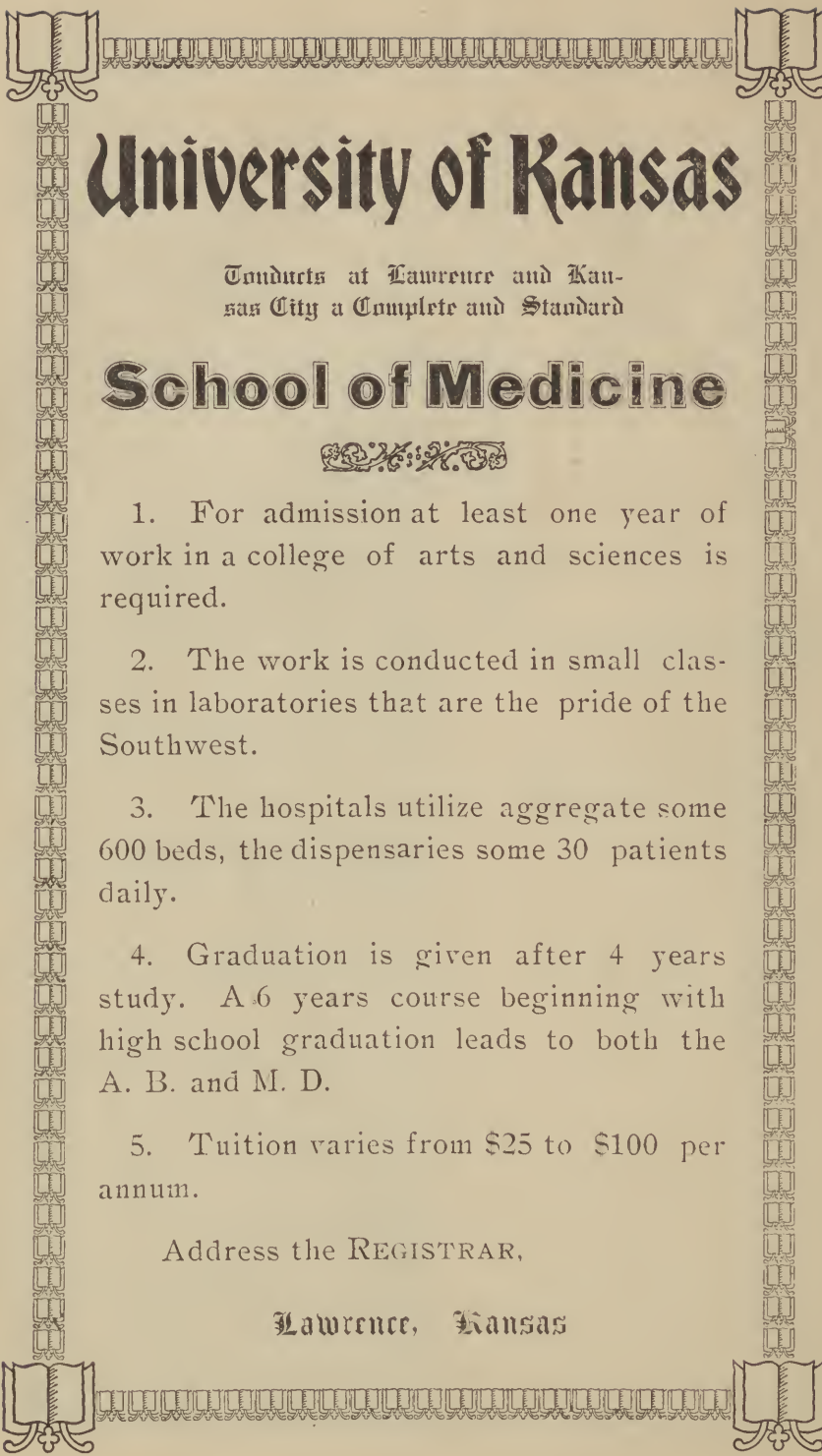
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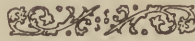
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OF THE

Oklahoma State Medical Association

VOL. 1

GUTHRIE, OKLAHOMA, JULY, 1908

No. 2

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Application made for entrance at the Postoffice at Guthrie, Oklahoma, as second class mail matter

This is the Journal of the Oklahoma State Medical Association, and every member is entitled to a copy every month; and if any member does not receive his Journal promptly, the matter should be reported to this office.
Communications of all kinds should be addressed to the Editor.

A WARNING.

We take this opportunity to caution our readers and advertising patrons regarding the claim made by the Oklahoma Medical News-Journal, published at Oklahoma City, that it is the "Journal of the Oklahoma State Medical Association." We are informed that the agents of that Journal are endeavoring to sell stock and get subscriptions and advertising by giving out the impression that it is the Journal owned by the State Medical Association.

At the annual meeting of the State Association in 1907, it was decided by the House of Delegates to establish a Journal, to be owned and controlled by the Association, the first issue of which was to come out June 1, 1908, and this Journal is the result of carrying out that decision. In order that the Association might have an official organ in the meantime, a contract was entered into between the State Association and the Oklahoma Medical News-Journal, by which that Journal became the official organ of the State Association for the year beginning June 1, 1907, and ending June 1, 1908, until the Association Journal should be established.

The facts are, the News-Journal never was the Journal of the Oklahoma State Medical Association," but merely the official organ of the Association, owned and controlled by private parties, and surely, since the expiration of the contract referred to, it has no right to claim that it is the Journal of the Association, and we hope that this warning will keep anyone from being deceived in the matter, as this is the only Journal of the Oklahoma State Medical Association.

THE MEDICAL PRACTICE ACT.

In this issue of the Journal may be found the Medical Practice Act passed by the last State Legislature, but we have not had time, since securing the certified copy of the law, to study it enough to be able to give an opinion of its merits.

We would be glad to have our readers study the law carefully and send us their criticisms, in order that we may get an idea of the opinion of the profession at large of the new law.

FORMALINE.

It will perhaps be a surprise to many of our readers to know that formaline is being used with very gratifying results in the treatment of tuberculous abscesses. However, this is the fact, as Dr. John B. Murphy and his associates have been using it for the past five years with very satisfactory results in the following manner: When pus has formed in a tuberculous swelling, an aspirator is introduced, and as much of the contents as possible are drawn off, and a two per cent solution of commercial formaline—in glycerine, never in water—is injected into the cavity, the amount being governed by the size of the cavity, ranging from two to four drams, and is repeated at intervals of about four weeks, until the symptoms have subsided.

If the abscess is in a joint the pressure must be relieved in the usual way, until the abscess is well.

A simple tuberculous abscess is not opened, as formerly, as it is almost sure to become infected, and then a mixed infection is to be dealt with, which is a much more serious condition, and often terminates fatally. The formaline solution should be 24 hours old before it is used, as otherwise harm will be done by its use.

Dr. Murphy exhibited one patient at Mercy Hospital with a tuberculous abscess of the hip, which showed very marked improvement after a single injection of the formaline solution.

Dr. Murphy also uses the formaline solution in the treatment of hydrops of the chest, knee or other joints, by aspirating the fluid and injecting the solution, with very brilliant results; we saw one case of hydrops of the knee that had been apparently cured by a single injection.

Practically the same methods are carried out in the treatment of empyema, the pus being drawn off as far as the patient will stand, followed by the injection of the solution. It is claimed by Dr. Murphy that this method of treatment will obviate the necessity of the very cruel operation of resection of ribs.

If this method of treatment is as effective as it appears, it is surely a very great improvement over any other method of treatment, unless it be the injection of iodoform emulsion, practiced by some.

The formaline solution has the advantages of being easier to prepare and costing very much less; it also makes a staple solution that will keep.

The points to be remembered are that must be prepared with glycerine, not water, and must have been prepared 24 hours before it is used.

Dr. Murphy advises the injection of this solution into any joint that has to be opened, one week before the operation; such, for instance, as the wiring of the fragments of a fractured patella, claiming that there is much less liability of infection, with pain and swelling, after the operation.

We would be pleased to have our readers report results of this method of treatment.

Original Articles

ADDRESS OF DR. FLOYD E. WARTERFIELD,
Chairman of Section on "Practice of Medicine"

A noted infidel once said that the future hope of Christianity depended upon the unity of the churches and the concentration of religious effort. Some years have gone by since he gave utterance to this language, and the sign of the times is that he was not so far wrong, since the leading ecclesiastical minds are bending their energies toward a concentration of purpose; getting into closer relationship with each other, and breaking loose from traditional and denominational strife. Today, in the realm of medicine, it does not require a prophet to take a survey of the situation and form conclusions; therefore I say to you at this time that the future success of the art and science of medicine in the world, and more especially in the state of Oklahoma, depends upon the concentration of purpose and unity of action of its votaries. Today it serves my purpose best to confine my remarks to conditions in our own state. Oklahoma, from a standpoint of natural resources, is one of the greatest, if not the greatest, states in the Union; its population, the most cosmopolitan and thrifty, and its future possibilities indeterminable by any known process of measurement. But in her course of development her brilliancy and continued well being will depend upon the character of her public officials. Upon their sturdy, upright character, or upon their susceptibility to the influences of financial, social or political preferment, will depend the future greatness of this commonwealth.

The prosperity of Oklahoma does not depend on the number and constituting astuteness of her ring of designing political tricksters, nor the "New Jerusalem" plan of her Capital City, nor the location of her public buildings and grounds to further the interests (whatever they may be) and ambitions of a gang of men who are catering to the prejudices of a class of people who are working overtime against their own interests in their mad frenzy to prevent a legitimate combination doing a legitimate business within its borders. But its prosperity does consist in its number of cultivated citizens, its men of education, en-

lightenment and character. Here are found its true interests, its strength and its real power.

I have no personal grievances toward any and do not wish to leave the impression that I have a wilful desire to accuse any one of sinister motives in the management of affairs; but the temptations surrounding men at times and in places, insidiously influences their actions, to the extent that they unconsciously almost, do the bidding of others. When men deviate from the right, and compromise with wrong, thereby bringing into disrepute the highest and noblest calling among men, and barter with human life as if it were mere merchandise, that they may further their financial, social, or political ambitions, I cannot refrain from raising a dissenting voice. That such has been and is still the case in this state, I am thoroughly convinced. When Oklahoma was admitted into the Union as a state, its organized medical profession had an opportunity to secure an ideal medical law, such as was never offered to the profession of any other state at any time. What has been the result? We have no completed medical legislation up to this date, so far as I am aware, and the legislation that is now undergoing the process of incubation, is of such character as to be wholly inadequate to meet the urgency of the situation and instead of improving our condition will probably make it worse. Why is this? For two reasons: First: For no other than sordid political purposes. Second: We have division within our own ranks. We are united as touching the needs of our profession and the people of the commonwealth.

Let us descend from the pedestal of our professional importance, put on the spectacles of the laity and endeavor to see ourselves as they see us, and perhaps we will be wiser and know better how to proceed and to succeed. Individually, we may be regarded by our friends who know us best, as men of influence, honor and integrity, socially and morally above reproach and financially and otherwise responsible; so much so that we are entrusted with the care of all they hold dear in this world that is their lives and reputations. With these they trust us implicitly and consider us capable of grappling with the most intricate problems arising in the course of our professional life. Collectively they regard us as a profession the members of which are on a par; they do not, and cannot, for lack of proper knowledge, make the proper distinction. They behold us as a body of professional men bent on each others destruction and speak of us with ridicule because we are divided in our opinions. They see no good reason for a division of opinion as touching any one thing if it is a proven truth, hence they are led to doubt our sincerity and attach little importance to the reforms we advocate. All this tends to bring discredit on the profession and often is the cause of some turning aside to popular fads or fan-

cies. The legislator is usually a layman, and views us through layman eyes; at any rate he knows no more about the needs of the profession or the people in matters medical, than a guinea pig does about the science of astronomy, and since he sees that we do not know what we want ourselves, as is evidenced by our strife, divisions and dissensions he is more easily swayed by the persuasions of the designing politician who is anxious to strengthen his lines and enhance his chance of future success by catering to the demands of those who have come into existence through the creation of an unmerited prejudice. What may we do to overcome this condition of affairs? In the first instance, we of all men should appreciate the value of proficiency. In no profession should the exaction of due preparation be as rigidly enforced as in the medical profession. In none can inadequate training work such dire results. Time and cost are secondary considerations when human life is the hazard. No compulsion rests on any community to permit men to practice medicine solely as a livelihood and not primarily to alleviate or to cure the maladies of mankind. We should look well to the standard of proficiency already set and see to its maintenance. Thus being better circumstanced to know of the needs of our profession and those we serve we should come together as a unit and demand that our demands be heeded. Let us fix the standard of requirements for the physician; the man who is perfectly content with resting his chances of success upon no surer foundation than that of being known as a physician who is willing to employ any agent or means known to the Art and Science whereby he may benefit suffering humanity, and not the man who must carry some special appellation along with him to distinguish from others. In the light of twentieth century knowledge, the man who is not willing to be known by the simple title of physician, but who insists that he must have a suffix or a prefix to set him apart from all others as possessing distinctive powers, is either a designing, culpable villain or an ignoramus. Let us set the stamp of disapproval upon the man who is really a capable physician, but who is willing, and does prostitute his profession for mercenary, social or political purposes.

Gentlemen, I have ever been of the opinion that it was unbecoming the dignity of the true physician to besmirch his moral and professional character by meddling with politics, but I am convinced that the time has come when we must enter into the political arena as professional men; not to stoop to that dirty, sordid sort of partisan politics that goes in to win, irrespective of the worth or merit of the cause, but to clean, honorable politics as

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good citizens in the interest of science and good government. So long as legislative matters are left entirely to the influences of designing politicians, just so long will we have compromise laws; and just so long as we permit internal discensions and corruptions to exist, just so long will we have a repetition of our recent experience. The average politician is insured against threats and appeals, and is wholly insensible to criticism. He knows no God but mammon, and heeds no voice but that of his "Boss." The only thing in this world that he fears is unity of purpose and decisive action on the part of his opposition. In this latter lies the hope of our success. Let us see if we may muster enough to disturb him. Each of the two thousand or more physicians doing a legitimate business in the state has personal influence with ten voters to control them in casting their ballots. This gives us control of 20,000 votes; enough and to spare to sway the tide of any election in this state for many moons. When we awake to the duty, as well as the opportunity confronting us, we will get what we know is needed to best serve the greatest number, both in the profession and out, and will never have a repetition of the nonsensical claims made by a designing adventurer, and whose cause was espoused by femininity in high circles, on the floor in open session, of an Oklahoma legislature. I have but to point you to the recent splendid victory won by the profession of the state of Illinois to convince you both of its feasibility and of its practicability. They have already taught the profession the lesson of dealing effectually with the professional politician. Let us follow in their foot prints. Let us "Lay aside the incumbrances that so easily beset us and get up and do our duty."

Robert Louis Stephenson, seeing the life of the medical man from without, wrote these memorable words "The physician is the flower of civilization and when that stage of man is done with, and only remembered to be marveled at in history, he will be thought to have shared as little as any in the defects of the period, and most notably exhibited the virtues of the race."

Such a tribute to the honor, valor, and value of our profession should give those of its members who are faithful an inspiration to redouble their efforts to bring it to the highest point of perfection and respect, and plant its banner so high and firmly that it will be invincible to all future time against the onslaughts of designing persons of whatever character.

And now, in parting, let me entreat you to unite your forces in an earnest effort looking to that end.

PILOCARPINE IN STRYCHNINE POISONING.

(Report of Case by J. D. Batson, Marietta, Okla.)

Mr. Chairman: About ten or eleven years ago I read an account in some journal, the name of which I do not now remember, of an experiment with pilocarpine as an antidote for strychnine poisoning. An amount of strychnine, supposed to be a lethal dose, was given a dog, and when the convulsions developed, a hypodermic of pilocarpine was given, resulting in complete recovery. Later it was repeated, with similar results. Later it was again repeated, but no pilocarpine was given, and the dog died.

I append below my experience, which corroborates the above, and while the amount of strychnine taken in this case is not known, yet a sufficient amount was absorbed to produce alarming results. On May 18, 1902, I was called to A. J. Green's, four miles south of Marietta, to see his two and one-half year old boy, who had taken strychnine. The parents had been shopping, and among other things, had purchased one drachm of strychnine with which to poison rabbits. The bundles were thrown on the floor, and some candy was given the little boy. In a few minutes the mother was horrified to see the little fellow with the bottle of strychnine to his mouth and the contents being emptied into it. She frantically called to him to "spit it out," and immediately washed out his mouth as thoroughly as she could. I arrived one hour later. They had tried the home remedies to produce emesis, but without effect. I immediately gave tannic acid to form the insoluble tannate, and gave apomorphine hypodermically. I waited a few minutes and repeated the apomorphine. In a little while the contents of the stomach were coming up. Fortunately the child had eaten dried apples (uncooked) that afternoon, and his stomach was full of undigested food, and not in condition for absorption. I gave more tannic acid and washed out the stomach as thoroughly as I could. Up to this time, as shown by the symptoms, but little absorption had taken place, but now the absorption began rapidly, as the convulsions began increasing in force and frequency. More tannic acid was given, and chloral was crowded until there was profound narcosis, but still the convulsions were stronger and coming every two minutes. It had now been an hour since the stomach was washed out, and the residue had evidently been absorbed. The convulsions were now tonic and death was imminent. I now recalled the report of the pilocarpine experiment on the dog, and recited the same to Dr. Green, the child's grandfather, with whose approval, as a last resort I gave pilocarpine hypodermically, and with results as follows:

Gave gr. 1-24 at.....	9:07 P. M.
No convulsion till.....	9:14
Convulsion at.....	9:19
Convulsion at.....	9:24
Gave gr. 1-24 at.....	9:25

Read before the Oklahoma State Medical Association May, 1908.

Convulsion at..... 9:29½
 Convulsion at..... 9:35
 Skin now moist and saliva flowing out of mouth.
 Slight convulsion at..... 9:44
 Slight convulsion at..... 9:46
 Very slight convulsion at..... 9:56
 And gradually lighter at 10, 10:06, 10:17, 10:22,
 10:34, 10:45, and the last at 11:13.

The bowels and bladder were evacuated and the patient made an uneventful recovery.

DISCUSSION.

Dr. M. Lively, Blackwell:

I had never heard of the Doctor's remedy, but owing to the account given, it must be a good one.

I had an unpleasant experience a short time since. A young man telephoned to me to come to his home at once. The house was five miles in the country. When I arrived there (I did not take any pains to hurry) the young man met me at the stable and said he wanted to explain something to me before I went into the house. He said he had called me to see his sister who was visiting him, her home being in Chicago. He said, "She is a highly educated woman, and has been a teacher of languages in Chicago. She has a very severe nervous trouble, but she does not desire the aid of any physician, and will be highly incensed when she knows I have called you." He told me that she had severe nervous spells which threw her into spasms.

I was taken to her room. I made a crackshot of diagnosis. The woman was lying on the bed with her back toward the door. Her hair did not look good to me. Her nails did not look good to me. I said to myself, 'Here is an educated woman, but she does not treat me with common courtesy. There is something wrong here.' When I put my hand on her pulse she began shrieking and there was a fearful condition of affairs. I said to her, 'What is the matter?' She said, 'You don't know and never will.' I said to myself this is no case of hysterics. I gave her a full grain of morphine and thirty (30) grains of hydro-chloral, and then one-half (½) grain of morphine. I gave her two more grains of morphine during the night.

Dr. Clio: I did not hear the first part of the paper, but from the discussions, I take it for granted that I have an idea of the contents of the paper. I am not certain that I should call strychnine a poison. The Doctor has already stated its effect.

I was called to see a man who had taken strychnine—fifteen (15) grains. I noticed that immediately after he entered the room he was terribly convulsed. All that I could immediately command was mustard. This produced partial emesis, not entirely satisfactory. I immediately chloroformed him and kept

him so for hours. He came out all right.

Another case, that of a young German. I don't know how much he had taken. He had been drinking very heavily of beer and had taken strychnine. I took the strychnine to the same store where it had been purchased, and I believe it was fifteen grains short. I chloroformed him, and kept him so for hours. He was saved.

Dr. Batson, closing: There are cases recorded where one-half ($\frac{1}{2}$) grain has proven fatal, and again, of cases in which twelve or fifteen grains have been taken on a full stomach and have not proved fatal. It is quickly eliminated. It has been found in the urine five minutes after taking. Pilocarpine has been found eliminated in the kidneys very quickly.

I will experiment on dogs next year and report results with them.

Murphy always puts his gloves on dry, using a powder for the purpose, and does it very easily and quickly, too.

Bevans says that, after the supra-pubic method of removing the prostate, you never have incontinence of urine, perineal fistulae nor injure the rectum which, perhaps, is why he performs that route.

Ryerson, of Chicago, says never open a tuberculous abscess. If the abscess threatens to open itself, aspirate it at a point where the tissues are thick and inject a few drams of Lugal's solution of iodine into the cavity, repeating the operation as often as is necessary.

Pennington does not use the clamp and cautery in operating for hemorrhoids.

In operating for appendicitis, where pus has formed, get in as quickly as possible and out the same way, without walling off the intestines or trying to find the appendix.—Morris.

A sudden cessation of pain and fever in acute appendicitis indicates one of two things: either the entire appendix has become gangrenous or it has emptied its contents into the bowel.—Murphy.

A wet glove is a septic glove, on the inside.—Murphy.

In cyst of the pancreas, do not open the cyst until you have a fistula, out through the skin that will preclude the possibility of any of the fluid from the cyst escaping into the peritoneal cavity.—Murphy.

CARDIO-VASCULAR CHANGES IN RENAL DISEASE.

By Dr. Arthur W. White, Oklahoma City.

There are many diseases resulting from affections or diseases of the cardio-vascular system; there are many others which give rise to cardio-vascular disease; but there is still another class of diseases of which involvement of the heart and blood vessels is a marked feature. The diseases in this class are included under the general head of Bright's disease.

The term Bright's disease is commonly used in reference to persons able to do more or less work, and who suffer more or less continued ill health. The popular term Bright's disease, then, describes very well a certain form of degeneration of the kidneys and arteries.

Changes in the vascular system are constant in chronic nephritis, and especially is it seen in all those who suffer from the commonest form of kidney trouble—viz., degeneration of the interstitial tissue of the kidney, followed by the formation of connective tissue and contraction of the whole organ, and classified by most authors as chronic intestinal nephritis.

The etiology of this form of nephritis is unquestionably hematogenous, probably due to some irritating substance circulating in the blood, and acting continuously over a long period of time, the sources of which are varied, and may be toxic, metabolic or inflammatory, all acting on the kidney substance to set up a marked irritation or inflammation, as the case may be.

After this inflammation or irritation has subsided, even after it has existed for a considerable time, new formed connective tissue results, and this, like all fibrous tissue, undergoes cicatrization and contraction. The whole organ is pervaded with bands of scar tissue, radiating from the sites of the kidney stroma, which bands, by contraction, draw the kidney tissue together, literally reducing the size of the organ.

In the days when "deadhouse" pathology was *all* the pathology known (and, unfortunately, that day still exists, in degree) this was called the small contracted kidney. It has always been considered a fatal condition because our total knowledge has been that of terminal conditions.

Now, a true classification of kidney disease *must* be based on pathological knowledge; nevertheless it must still be, to a great extent, a matter of clinical symptoms, for, strange as it may seem, the kidneys which, after death, give the plainest evidence of change, oftentimes have produced the least apparent disturbance during life.

Read Before the Oklahoma State Medical Association May, 1908.

In studying these conditions, permit me to emphasize the circulatory phenomena; for in Bright's disease one can not separate the circulatory apparatus from the kidneys, particularly in the chronic cases—they go hand in hand.

The heart and arterial symptoms frequently occur before there are any urinary symptoms. Often the first thing noticed by the physician is an increased arterial tension. Of the early manifestations this is the most important. It may be the only cardinal symptom in a congeries which includes headache, palpitation, bronchial cough, dizziness and a number of kindred phenomena.

The cause is mechanical, and originates in the action on the blood vessels of restrained poison which should be carried off in the urine, but which, circulating in the blood, (the kidneys having failed to eliminate it) sets up an irritation to the muscular coats of the arteries, in consequence of which the vessels contract.

This must not be confounded with sclerosis of the arteries, which may *follow* prolonged arterial tension, or which may occur independently of renal disturbance and at about the same time of life with chronic intestinal nephritis.

High arterial tension, a resulting symptom in intestinal nephritis, is also a prominent causative factor in producing an hypertrophy of the left ventricle, as based on the following well known physiological law, i. e.: "Any heart chamber which suffers an increase of pressure only during systole, hypertrophies, i. e., corresponding to the greater amount of work, its muscle increases without an increase in the size of the cavity.

In these cases left heart hypertrophy is not determined so much by the absolute increase in the area of cardiac dullness as by the marked accentuation of the second aortic sound of the heart and the gallop or pendulum rhythm of the heart's action. These two signs are always diagnostic of left heart compensatory hypertrophy, without dilation. No murmur is heard so long as the heart is compensated, or unless the patient has been a sufferer from endocarditis, prior to the onset of his renal trouble; or the latter itself, by long continuance, may have produced endocarditis and atheroma with an aortic systolic murmur. As an associated condition of intestinal nephritis, per se, valvular disease does not exist.

The hypertrophy of the heart is conservative or compensatory, and so long as it remains so and is able to keep up its work, all goes well; but when the left heart begins to fail and dilation appears, the blood pressure falls and there begins a long chain of symptoms familiar to you all as "indications of failing heart," then there remains but one hope, i. e., compensatory hypertrophy of the right ventricle, which may avert the symptoms and support the patient for a time.

There are then two associated conditions of the cardio-vascular symptom in Bright's disease of primary importance to us,

viz., high arterial tension and left ventricular hypertrophy.

If these be overlooked in the examination of the patient, in the great majority of cases of chronic nephritis the diagnosis will not be made in time to be of any advantage, either to the patient or to the physician, for the urinary findings in the earlier stages of this disease are often misleading, if not absolutely negative.

If, however, the condition is determined at a time before the resistance to the heart's action has become too great, and while there is still a compensatory hypertrophy of the left ventricle, much may be done for the patient; and right here permit me to urge upon you the necessity of making a careful examination, first, of the pulse and blood vessels; second, of the chest, in all patients of middle age suffering from vague conditions, the symptoms of which are not prominent; and especially those individuals who present any urinary disturbance whatsoever.

In increased blood pressure the pulse is hard and resisting to the touch, very similar to that in arterio-sclerosis, except that if the blood current be cut off by pressure on the artery, the blood vessel beyond this point, in sclerosis, continues tangible, while in simple high tension it disappears.

The sphygmographic tracings (which should be resorted to in every doubtful case) show, in high tension, an increase in size and number in elastic elevations at the curve and ascending limb, and both the descending and ascending limbs are oblique. The curve is generally low except when, in addition to the increased resistance, there is a full systole as well.

In arterio-sclerosis the elastic elevations disappear and the pulse is slow and monocrotic.

The clinical findings in left heart hypertrophy are a powerful, broad apex beat, displaced outward and sometimes downward; increased cardiac dullness in the left and upward; a boom-low-pitched first sound and an accentuated second sound of a whistling character, heard best in the aortic area, although the last sound is heard in increased arterial tension when no hypertrophy exists.

The poisonous substances (commonly called urea) of which we have already spoken, circulating in the blood, cause a contraction of the small arteries; hence it is more difficult for the heart to keep pumping than normally; but the heart is wonderfully controlled by the nervous system and is regulated to give a sufficient blood supply to any part of the body as is required; so the heart works the harder as the blood vessels continue to resist, until the heart is no longer able to meet the requirements, and cardiac dilatation results.

On the other hand, the reflex mediated by the depressor nerve comes into play, so that either the vessels are dilated or the heart beats are retarded, but even if this reflex fails, there is an upper limit to the blood pressure, beyond which it cannot pass. The activity and power of the heart are not unlimited, and we have good reason for asserting that if the heart power is maintained and the high resistance remains in the vessels, the

quantity of blood expelled in a given time actually diminishes, consequently the blood supply through the kidneys and other organs of the body is limited, and the kidneys, in their crippled condition, being the original cause for the increased resistance, the one influences the other, and a vicious cycle is established between the heart and kidneys.

It is because of this knowledge that the chronic nephritic cases, if diagnosed in time, can be successfully treated, or at least greatly benefited.

A mode of life is adopted, a diet established and certain drugs given that will overcome this tendency to a high arterial tension and save the patient from the damages that result.

If successful treatment is not instituted early, the patient soon passes beyond help. Hypertrophied tissue has a marked tendency toward degeneration, and after a time the heart gives out and the blood is no longer forced through the arteries; the kidneys and lungs, being poorly supplied with blood, also undergo degeneration. Oedema of the lungs as of other parts of the body results, principally because the heart fails in its task of circulating the blood, and the patient dies from the failure of the circulation.

Apoplexy occurs not infrequently in the course of chronic nephritis. Rupture of a blood vessel in the brain, resulting from the degeneration of the arterial walls, brought about by the long continued tension, is not rare.

I am sorry the allotted time will not permit us to go further into the subject, and also to take up and discuss fully the management and treatment of these cases.

Suffice it to say that the wise physician will not advise any medication nor allow any diet that will irritate the kidneys.

The bowels should be kept well open, the exercise regulated, a non-irritating diet (chiefly of milk) laid down, and those drugs given which will reduce the arterial tension, viz., the nitrites and the iodids, and tone up the muscular system, as strychnia.

DISCUSSION.

Dr. R. H. Harper, Afton: I would like to ask Dr. White to tell us, in closing, if the subject of treatment is included in his paper, what the present status of treatment of decapsulation of the kidney is in nephritis, and what the result has been.

Dr. G. A. Boyle, Enid: I rise to congratulate Dr. White on the clear-cut manner in which he has described these conditions in the kidney, but more especially for showing us the necessity of early diagnosis. I have had five cases of nephritis in the last year, every one of which might have been saved if the condition had been recognized early enough. The Doctor spoke of chronic interstitial nephritis. An early diagnosis in this condition is all-important. I know a man on whom a diagnosis of nephritis was made ten years ago, and because his condition was recognized and he was properly treated, he is living today.

Dr. J. H. Barnes, Enid: That was a good paper. I was much impressed with what was said concerning the condition of the blood vessels in this trouble, and I want to say that in this condition changes in the blood vessels are sometimes apparent very early and begin with the small blood vessels. These conditions can be determined early by examining the retina. In examining the retina we see the very smallest of the blood vessels, and consequently we may be able to give our patients great relief. These changes in the retina are common in kidney troubles.

Dr. A. K. West, Oklahoma City: That was one of the clearest cut papers I have heard for a long time. He outlined the early findings in Bright's disease very well indeed.

Dr. A. S. Cloud, Kiowa, Kansas: I want to say it is the best paper I ever heard on the subject.

Dr. D. D. McHenry, Cushing: There are yet many poisons in the blood that are absorbed in the intestinal tract that are undiscovered, and we may yet find the cause of nephritis to be in the intestinal tract. There are forms of toxin in the intestinal tract besides urea, which has been spoken of here, and I think we will some time find the cause of this disease in the intestinal tract.

Dr. White, closing: As to Edebold's operation. I think it is done very little, and has offered very little in the way of success.

As to diagnosis and pathology of this subject our knowledge is somewhat limited, yet it is an immense subject. It all hinges on what we have known as dead-house pathology. We must study symptoms more; we must examine our patient and note the early appearances in these cases; when we have done that, then, in addition to the terminal pathology of the dead house, we shall have something that will be of help to us. The pathology we get from the kidney of a dead man is the pathology of what the man died of. I think what is of most interest, and certainly of most importance to us, is the pathology of the beginning condition, not the terminal. It is true that pathology is the key to diagnosis, and what we want is the pathology that will enable us to make a diagnosis at a time in the patient's condition when it will be of some benefit to him. After high arterial tension has become well established, we must look for left heart hypertrophy. Nature increases the heart's power to overcome that resistance.

As to the retinal changes: I referred merely to any changes in end arteries. Very frequently the eye-man is the first man to recognize a kidney case. The ophthalmoscope should be used in every case first.

As to toxins having an effect on the kidneys, I believe they are the fundamental cause in ninety-nine cases out of one hundred.

The test for indican should always be made in examining the urine.

*SIXTEENTH ANNUAL MEETING OF THE OKLAHOMA
STATE MEDICAL ASSOCIATION, SULPHUR, OKLA.*

Wednesday, May 13, 1908.

SCIENTIFIC SESSION.

Meeting called to order by the President, Dr. C. S. Bobo.

Invocation by Rev. M. Weaver.

Address of Welcome by the Mayor of the City of Sulphur,
and by Dr. Green.

Response by Dr. C. S. Bobo, President, on behalf of the
State Medical Association.

Address on behalf of the Physicians of Murray County, by
Dr. J. A. Adams.

(Response to Dr. Adams' address by Dr. G. A. McBride
was not given, as Dr. McBride was not present.)

Address by President, Dr. C. S. Bobo.

Motion made and carried that address of President be given
to Committee on Publication.

Minutes of last meeting were then read by Secretary, Dr.
E. O. Barker.

The report of the House of Delegates was then called for.
Secretary Barker announced that the minutes of that meeting
were not in shape for reading, but stated that they had had a
meeting the night before, and that the matter of legislation and
of a journal for the Society had been taken up.

Society adjourned until afternoon.

GENERAL SESSION, THURSDAY MORNING.

A committee from the Ladies Auxiliary requested that the
ladies be allowed to name the place of meeting each alternate
year. Some discussion took place over this, and it was ruled
that it was unconstitutional, as provision was already made as
to whom should have the power to select the place of meeting.

Dr. F. H. Clark then moved that they proceed by informal
ballot to the election of officers for the ensuing year.

Dr. Bobo, President, appointed as tellers, Dr. Thacker, Dr.
Harper and Dr. Brown. Dr. Bobo called attention to the fact
that none but members of the House of Delegates and Councilors
were allowed to vote in this election.

Drs. Waterfield, Harper, Bradford, Le Roy Long, Vance,
Blesh, Bobo, were placed in nomination, and after an informal
ballot all but Waterfield and Vance (who received the highest
number of votes) withdrew, and the ballots were next cast for
these two names. Dr. Vance receiving the highest number of
votes, was declared President of the Oklahoma State Medical
Association, and a motion made by Dr. Waterfield that the vote
be declared unanimous for Dr. Vance was carried, and it was so
done, amid applause.

VICE PRESIDENT.

A motion was made and carried that the vote be cast for the three Vice Presidents at one time, and the one receiving the highest number of votes be made First Vice President, the next highest, Second Vice President, and the one receiving the third highest number be made Third Vice President.

A long list of names was placed in nomination, but Dr. Floyd Waterfield, receiving the highest number of votes, was made First Vice President; Dr. Bradford (Shawnee), receiving the next highest number, was made Second Vice President, and Dr. Booth of Ardmore, receiving the third highest number of votes, was made Third Vice President.

Result: Dr. Floyd Waterfield, First Vice President; Dr. W. C. Bradford, Second Vice President; Dr. Booth, Ardmore, Third Vice President.

SECRETARY.

An informal ballot for Secretary was then cast on the following names: Thompson, A. D. Young, Barker, Brown, and Ebright.

Dr. Barker and Dr. Young receiving the highest number of votes, a vote was taken on these two names, which resulted in the re-election of Dr. E. O. Barker as Secretary of the State Medical Association for the ensuing year.

A motion by Dr. Arthur White of Oklahoma City that the vote be made unanimous was carried with applause.

PLACE OF MEETING.

The next matter to be taken up was the place of meeting next year. Shawnee, Chickasha, Muskogee, El Reno, Guthrie and Oklahoma City were placed before the Association, each place heartily endorsed by its representative. Oklahoma City was unanimously chosen.

DELEGATES TO AMERICAN MEDICAL ASSOCIATION.

Nominations were then made for delegates to the American Medical Association.

Dr. C. S. Bobo, retiring President, was elected to the long term, and Dr. U. L. Russell, Oklahoma City, to the short term. Dr. J. D. Walker and Dr. J. H. Stolper were made alternates.

COUNCILORS.

Four Councilors were to be elected, and the result of the ballot was as follows: Fourth District, Dr. E. B. Mitchell; Sixth District, Dr. R. F. Sutton; Seventh District, Dr. C. A. Thompson; Tenth District, Dr. E. N. Wright.

MEMBER BOARD MEDICAL EDUCATION.

Dr. Vance, newly elected President of the Association, offered his resignation as a member of the Committee on Education. Resignation was accepted.

Dr. A. K. West, of Oklahoma City, was placed in nomination as member of Committee on Medical Education, by Dr. Arthur White, of Oklahoma City, and received the election, thus becoming a member of the Committee for the next three years.

HONORARY MEMBER.

A motion was then made by Arthur W. White, Oklahoma City, that Dr. W. H. Clutter of Oklahoma City be made an honorary member of the State Medical Association. Motion seconded by Dr. A. K. West, carried and made unanimous.

NECROLOGY

Motion made and carried that Dr. M. M. Lively succeed himself as member of Committee on Necrology for the State Association.

A RESOLUTION

At this time the following resolution was offered by Dr. J. B. Batson, Marietta:

Whereas, Diphtheria is a great public calamity and a highly contagious disease, and its unchecked spread is a menace to the welfare of the public in general; and

Whereas, Diphtheritic antitoxin is generally recognized by the profession as the sheet anchor in the treatment of this, at one time, so fatal disease, Now, Therefore,

Be It Resolved, That the State Medical Society, in session, do instruct our Committee on Public Legislation to use their efforts to cause the State to provide antitoxin free for general use.

A vote of thanks was extended to Dr. J. H. Stolper for his earnest and untiring efforts as chairman of his Section, by the House of Delegates.

Dr. Stolper: I thank you all, but, as I understand it, when a man undertakes to do a thing, the only thing is to do it. I do not consider that I have done more than my duty.

A motion was made and carried, raising the membership dues from \$1.50 to \$2.00.

Motion made and carried to adjourn.

AFTERNOON SESSION—THURSDAY.

GENERAL MEETING.

Dr. Warden Ebricht presented the following:

AN AMENDMENT TO THE CONSTITUTION, ARTICLE XI.

Whereby the lines reading: "The assessment shall not exceed the sum of \$2.00 per capita per member," be changed to

read: "The assessment shall not exceed the sum of \$3.00 per capita per member."

It was voted to submit this matter to the County Societies, as referendum.

Dr. E. O. Barker then presented the following resolutions:

Resolved, That a vote of thanks be extended to the physicians and wives, and to the citizens of the City of Sulphur, for their kind and hospitable entertainment of our members and their wives during this meeting.

Also:

Resolved, That a vote of thanks be extended to the Woman's Auxiliary for their support in making this one of the most successful meetings ever held, and that we most cordially invite their continued support for the future.

Dr. C. S. Bobo, President: It is my pleasure to introduce to you the President-elect of the Oklahoma State Medical Association, and in turning the gavel over to him, I have no fears that the interests of the State Medical Association will not be preserved in his hands, and I bespeak for the President-elect the hearty co-operation and good feeling of every doctor of the Association. I now introduce to you, Dr. B. J. Vance.

Dr. Vance: I feel like the young man who proposed to a young lady, and she said, "This is rather sudden" (he had been going to see her for several years).

For this honor, which you have conferred upon me, I have no language to express my appreciation, but I am very glad of the honor. Honor, did I say? I consider it an honor to be placed at the head of a profession like this, in a great state like this, and a profession that is composed of some of the best men in the Union, in the medical profession, and is so recognized in other states. Now, I cannot recognize this without recognizing the great responsibility placed upon me. I shall try to emulate the example of my predecessor, and if I steer the craft as successfully as my predecessor has done, I shall be satisfied. I assure you that whatever I can do to further the interests of the Medical Association, I shall do.

I feel encouraged that in the future this Association is going to pay more particular attention to the object for which it was formed, that is, we are going to pay more attention to the scientific discussions. We must not forget to promote the great interests of science and let other things go to one side. Gentle-

men, I pledge you my best efforts in the position to which you have called me.

Dr. Bobo: In retiring from the office of President, I have a deep feeling of appreciation and interest in my heart for the members of this Association. You have treated me with courtesy and kindness, for which I thank you, and I assure you that if, at any time, there is anything I can do to serve the profession of Oklahoma, you can command me and I shall give my hearty support. I love you all and leave this office with malice toward none, and the hope to remain a member of this Association as long as I live, or the institution lives.

Dr. Barker, Secretary: I move that the State Association render Dr. Bobo a vote of thanks for the kindly way he has treated all of us, and the able manner in which he has filled the office. Motion seconded and unanimously carried.

The next business to come before the Association was the election of a Chairman for the Section on Surgery for the ensuing year. Dr. Le Roy Long was placed in nomination, and the Secretary was instructed to cast the vote of the Association for Dr. Long as Chairman of the Section on Surgery. So done.

The name of Dr. Arthur White, Oklahoma City, was placed in nomination as Chairman of the Section on Practice of Medicine. Moved and duly carried that the Secretary of the Association be instructed to cast the vote of the House for Dr. White. So done.

Dr. Ney Neel was nominated Chairman of the Section on Obstetrics, and the Secretary was instructed to cast the vote of the Association for Dr. Ney Neel. So done.

The matter of electing a Chairman for the Section on State Medicine was next taken up. Dr. J. M. McComas, Elk City, was placed in nomination, and the Secretary was instructed to cast the vote of the House for Dr. McComas as Chairman, which was done.

A motion was made and carried that the Association now listen to the reading of the papers of the Section on Nervous Diseases, by title, and that the Association proceed to the election of a Chairman for that Section.

Dr. W. W. Rucks, Fort Supply, was made Chairman of the Section on Nervous Diseases for the ensuing year.

Dr. L. J. Moorman, Oklahoma City, was placed in nomination for Chairman of Section on Diseases of Children by Dr. A. D. Young, and a motion was made and carried that the secretary be instructed to cast the vote of the Society for Dr. Moorman. So done.

The Association next proceeded to the election of a Chairman for the Department of Pathology. Dr. Clarence E. Lee, Oklahoma City, was nominated, and the Secretary instructed to cast the ballot of the Association for Dr. Lee. So done.

Dr. Vance, President-elect: A parting word: I would be glad to say what I am going to say to every member of the Association. We need all the co-operation we can get to make this Association as much of a success as we can. We are entering upon another year with all the improvements we can. We have established a Journal—it will be *our* Journal and its columns will be open for papers. You will be called upon for papers for Sections, and all who can should prepare the best paper they can, and be present at the next meeting and read it. It is not so important that you report all your successes as that you report some of your failures, that we may learn from them. We need to learn how to manage cases from the experience of others as well as from our own.

Dr. A. L. Blesh, Oklahoma City: The meeting next year will be so arranged that Section work can go on uninterruptedly. Two or three Sections will be in session at the same time. It is not expected that the delegate body and the councilor body will attend very many of these scientific sessions. We who compose those bodies are here to *work*. I will speak for the profession now and say “we will make good,” and give every man an opportunity to read his paper. The Sections will be run simultaneously. The delegate body will do their work independent of the scientific body, so will the councilor body.

Dr. E. D. Ebright, Carmen, then moved the repeal of the act calling for the reading of papers before the County Societies that were intended for presentation before the State Society. The Society then went into general session in order to take action on this motion, which was then put again. Motion carried.

The Secretary of the Association cautioned the Chairmen of the Sections about getting men on their programs whose names were objectionable to the local society.

A motion was then made to adjourn. Carried, 4:15 p. m., May 14, 1908.

Do not operate for fracture of the spine until several weeks after the injury, unless there is good reason to believe that spiculae of bone have been driven into the cord.

Remember that the most dangerous complication following operation for large ventral hernia, is pneumonia.

THE AMERICAN MEDICAL ASSOCIATION

The fifty-ninth Annual Session of the American Medical Association was held in Chicago, June 2 to 5. For the first time since the St. Paul meeting in 1901, the Association met in the center of the country. To this fact, as well as to the greatly increased membership in the last few years is due the large attendance. The registration office opened at 8:30 on Monday morning and it was apparent almost from the start that all previous records of attendance would be broken. In the four days of the session 6447 members were registered. Including those Chicago members who did not register, there were at least 500 in attendance whose names do not appear on the registration list. The actual attendance would not fall far short of 7,000. Adding at least 10,000 guests, exhibitors, etc., makes the actual number persons in attendance about 17,000. The weather was of that well-nigh perfect brand that Chicago can exhibit at times, being bright and clear, yet pleasantly cool and bracing. The general headquarters and registration offices were located in the First Regiment Armory at Sixteenth and Michigan Avenue, where were also found the Sections on Stomatology and Pathology and Physiology, as well as the House of Delegates, Commercial Exhibit, Scientific Exhibit, etc. This building, one of the finest national guard armories in the country, served admirably for convention purposes. The meeting places for the other ten sections were the First and Second Presbyterian Churches, Sinai Temple, the Calumet Club and Grace Church Parish House, all within a few blocks of the general headquarters and the Orchestra Hall in the downtown district, in which the Section in Surgery and Anatomy met. This hall, one of the handsomest auditoriums in the city, seats 2,500 and was supposed to be ample for the meetings of this section, yet it was on several occasions inadequate, being crowded to the doors.

The House of Delegates was called to order on Monday morning at 10:00 by the president, Dr. Joseph D. Bryant of New York who in his presidential address commented the work of the Council on Pharmacy and Chemistry as well as that done by Dr. McCormack in educating the public. He also recommended that a standing committee be established to elaborate the ethical principles underlying the practice of medicine and that general instruction in ethical medicine be made a part of the undergraduate course. He dwelt particularly on the efforts now being made to restrict animal experimentation and recommended action by the House of Delegates on this subject. Dr. Bryant also called attention to the invitation extended by President Roosevelt to him as President of the American Medical Association, to take part in the conference recently held at Washington on the Conservation of Natural Resources.

The report of the General Secretary showed that the membership of the Association on May 1, 1908 was 31,343, a net gain for the past year of 3828. The reports received from state associations regarding the organization of branch associations showed that two states had voted in favor of their establishment, seven had voted against and the remainder had at the time of

publication of the report taken no action. The appointment of a committee to consider uniform provisions for the regulation of county, state and American Medical Association membership was recommended. A communication was presented from the secretary of the American Association for the Advancement of Science asking that the American Medical Association appoint representatives to the Council of that body.

The report of the Board of Trustees included the customary report from the auditing company, showing that the entire business for the fiscal year of 1907 was \$385,030.89; that the total expenditures of the year had amounted to 356,222.21, leaving a net revenue for the year of \$28,808.68. Detailed statements of all the various accounts of the Association's business were given showing the items in each case. The report showed that during 1907, 2,715,293 copies of The Journal had been issued, forming a weekly average of 52,217, an increase of 12 1-2 per cent over 1906.

The Committee on Medical Legislation reported that the Army Medical Reorganization Bill and the Carroll-Lazear Pension Bills had become laws during the last session of Congress. The importance of uniform and adequate state legislation on the practice of medicine and the preservation of public health was emphasized as well as the necessity of careful study of the problems involved. The Committee recommended that pending the completion of the work now being done only those changes in existing laws which are imperatively needed should be attempted by state associations. The formulation of the Vital Statistics Bill endorsed by the United States Census Department, the American Public Health Association, the Conference on Uniform State Laws of the American Bar Association and the American Statistical Association, was reported and the endorsement of the House of Delegates was asked for this measure. The report of the Chicago Conference on Medical Legislation was also given.

The Council on Medical Education reported that the work of the Council during the past year had been along the following lines:

1. The inspection and classification of medical colleges as (a) acceptable, (b) doubtful and (c) unsatisfactory.
2. The conducting of an annual conference with representatives of state examining boards and leading educators for the discussion of the important problems of medical education and medical licensure.
3. The collection and compilation of data regarding (a) Medical college students and graduates and (b) regarding results of state license examinations.
4. A thorough investigation of preliminary and medical education in Europe.
5. Working for the advancement of the requirement of preliminary education in the United States to include a year's work in physics, chemistry, biology and modern languages.
6. Obtaining accurate information regarding high schools and universities in their relation to medical education.

The Board of Public Instruction reported that it had secured a secretary, Dr. R. Max Goepp of Philadelphia, and that it was considering the establishment of lecture systems and of state boards of public instruction and intended to publish articles in the magazines and public press for the enlightenment of the public on disease.

The Committee on Ophthalmia Neonatorum advised the enactment of laws in each state regarding the registration of births and placing the control of midwives in the hands of the boards of health; that health boards distribute circulars to midwives and mothers on the dangers and prophylaxis of this disease; that state and local boards of health prepare and distribute proper prophylactic solutions with specific directions for their use; that proper records be maintained in all hospitals in which children are born; that periodic reports be made by all physicians to boards of health; that concerted effort be made along the lines of public education throughout the country. This report was approved by the chairmen of the Sections on Ophthalmology, Obstetrics and Diseases of Women and Hygiene and Sanitary Science.

The Committee on Scientific Research recommended the appropriation of \$200 for the assistance of each of the following:

Drs. J. D. McCarthy and M. K. Myers, Philadelphia, "An Experimental Study of Cerebral Thrombosis."

Dr. Karl Voegtlin, Baltimore, "Chemistry of the Parathyroid Glands."

Dr. Isabel Herb, Chicago, "A Study of the Etiology of Mumps."

Drs. R. M. Pearce, Albany, N. Y.; H. C. Jackson and A. W. Elting, "A Study of the Elimination of Inorganic Salts in a Case of Chronic Universal Edema of Unknown Etiology With Apparent Recovery."

Dr. H. T. Ricketts, Chicago, "An Investigation of the Identity of the Rocky Mountain Fever of Idaho With That Found in Western Montana."

On Tuesday afternoon, at the third meeting of the House, the reports of the Reference Committees were taken up, the Reference Committee on Medical Education approving the work of the Council on Medical Education and recommending that it be continued. The Reference Committee on Reports of Officers recommended the appointment of a committee of five to consider the elaboration of the Principles of Ethics. Resolutions condemning the legislative efforts to restrict animal experimentation were presented. The action of the Board of Trustees in preparing the second edition of the Directory was approved. The Reference Committee on Legislation and Political Action recommended the approval of the model law for vital statistics, which recommendation was adopted. The resolution presented by Dr. A. T. McCormack of Kentucky, requesting all State Associations publishing or controlling medical journals to restrict advertisements to such preparations as were approved by the Council on Pharmacy and Chemistry, was adopted. A committee of three to confer with a like committee from the American

Pharmaceutical Association in regard to drug reforms was authorized. The candidacy of Dr. C. A. L. Reed, of Cincinnati, for the United States Senate, was endorsed.

On Thursday afternoon the annual election took place, with the following results:

President, Dr. William C. Gorgas, Ancon, Panama.

First Vice President, Dr. Thomas Jefferson Murray, Butte, Mont.

Second Vice President, Dr. John A. Hatchett, El Reno, Okla.

Third Vice President, Dr. Thomas A. Woodruff, Chicago, Ill.

Fourth Vice President, Dr. E. N. Hall, Woodburn, Ky.

General Secretary, Dr. George H. Simmons, Chicago, Ill., re-elected.

Treasurer, Dr. Frank Billings, Chicago, Ill., re-elected.

Trustees to serve until 1911, Dr. Wisner R. Townsend, New York; Dr. Philip Mills Jones, San Francisco; Dr. William T. Sarles, Sparta, Wis.

The following nominations were made by the President and confirmed by the House of Delegates:

Committee on Medical Legislation, Dr. Charles Harrington, Boston, Mass., to serve until 1911.

Council on Medical Education, Dr. Victor C. Vaughan, Ann Arbor, Mich., to serve until 1913.

Committee on Transportation and Place of Session, Dr. M. L. Harris, Chicago, chairman, for three years.

The following were elected honorary members: Dr. Edward F. Schaefer, Edinburgh, Scotland; Dr. August Martin, Greifswald, Germany; Dr. E. Treacher Collins, London, England.

The Committee on Awards reported the following awards, in accordance with the report of the Committee on Scientific Exhibit:

Dr. H. T. Ricketts, gold medal for research exhibit on tick fever.

Dr. Fenton B. Turk, diploma for exhibit illustrating pathology of peptic ulcer.

Northwestern University Medical Department, diploma for teaching exhibit, illustrating morbid anatomy.

Rush Medical College, diploma for teaching exhibit, illustrating morbid anatomy.

Dr. Charles H. Beard, diploma for exhibit of drawings of the human eyeground.

Dr. Maximilian Herzog, diploma for exhibit, illustrating early human embryology.

St. Mary's Hospital, Rochester, Minn., diploma for clinical and pathologic exhibit of stereoscopic photographs.

Dr. Edmond Souchon, diploma for improved method for the preservation and exhibition of anatomic specimens.

Dr. A. M. Stober, Cook County Hospital, diploma for exhibit, illustrating blastomycosis.

Dr. Mallory and Dr. Wolbach (Harvard), diploma for exhibit of drawings and photomicrographs, illustrating the classification of tumors.

U. S. Public Health and Marine Service, honorable mention for exhibit, illustrating the investigations of Dr. C. W. Stiles on hookworm.

Iowa State University, honorable mention for instructive tuberculosis exhibit.

Cincinnati Hospital, honorable mention for creditable group of specimens.

Philadelphia Polyclinic, honorable mention for creditable exhibit of group of teaching specimens.

Lying-In Hospital of New York, honorable mention for creditable exhibit.

The Committee on Transportation and Place of Session recommended Atlantic City as the next meeting place, which choice was agreed to by the House of Delegates. The Reference Committee on Legislation and Political Action reported, requesting the Committee on Medical Legislation to arrange for a conference with the Committee of One Hundred, the Surgeons-General of the Army, Navy and Public Health and Marine Hospital Services, with a view to securing co-operation on the establishment of a National Department of Health. After the transaction of some routine business, the House adjourned.

One hundred and thirty-four members of the House were present, out of a total membership of one hundred and forty-two. The meetings of the House were better attended than at any time since its organization. The business was dispatched with accuracy and rapidity, the most notable tendency being the reference of resolutions, communications, etc., to the appropriate reference committees without discussion, reserving the consideration of the questions involved until the reference committee had considered the matter and submitted a report.

The social events of the week were particularly attractive. On Monday night the Secretaries of the State Associations and the editors of the state journals met at dinner and completed the organization of a State Secretaries and Editors Association. A dinner to foreign guests, as well as a number of other social events, also occurred on Monday evening. On Tuesday evening twenty-seven alumni dinners were held in the various hotels and restaurants throughout the city, the largest being that of Northwestern University Medical School, held at the Illinois Athletic Club, at which over 800 alumni were present. On Wednesday evening the President's reception and ball were held at the Coliseum, thousands of members and guests being present. On Thursday evening the local profession tendered the members of the Association a smoker at the Coliseum, at which the attendance amounted to about 8000. Numerous social attractions were provided during the day for the ladies and guests, including receptions at the South Shore Country Club, Chicago Women's Club, etc. The sessions were all largely attended and the programs were of a high order. The session was in every way the most noteworthy of any which has yet been held, and it is anticipated that some years will elapse before the record established will be surpassed.

THE AMERICAN MEDICAL ASSOCIATION.

The 1908 meeting of the American Medical Association, held in Chicago, June 2d to 5th, inclusive, proved to be not only the most largely attended, but the attendance represented the American doctor most truly, as the attendance came from all parts of the United States, and not largely from one section, as is the case when it is held at one side of the country, as is usually the case.

The interest was good and the social functions were well attended and greatly enjoyed by all. In another part of the *Journal* will be found an abstract of the proceedings of the meeting, for which we are indebted to Dr. Green, assistant secretary of the American Medical Association.

Below is first a list of Oklahoma doctors registered at the meeting, and then a list of guests in attendance, not members:

H. A. Angus, Lawton, 1647 Thorn street; M. A. Ball, Wauwau, 393 Fortieth street; E. O. Barker, Guthrie, Victoria; J. P. Bartley, Comanche, 2614 Indiana avenue; V. Berry, Wetumka, 481 Cleveland avenue; C. S. Bobo, Norman, 2332 Michigan Ave.; J. M. Bonham, Hobart, 2027 Michigan Ave.; W. D. Bolton, Clinton, 2329 Michigan Ave.; A. H. Bungardt, Cordell, Whitmore; Fred H. Clark, El Reno, Lexington; J. Angus Gillis, Frederick, Chicago Polyclinic; Walter Hardy, Ardmore, 26 Best Ave.; A. W. Herron, Adair, 6533 Woodlawn Ave.; Joseph A. Jester, Foss, 2500 Michigan Ave.; W. L. Kendall, Durant, 2503 Michigan Ave.; M. H. Levi Elk City, Polyclinic; LeRoy Long, McAlester, 2458 Indiana; John Z. Mraz, Prague, Chicago Polyclinic; B. B. Owens, Minco, Chicago Polyclinic; McLain Rogers, Geary, 2427 Michigan Ave.; Floyd E. Waterfield, Holdenville, 481 Cleveland Ave.; R. A. Workman, Woodward, Great Northern; A. W. Dail, Cement; L. A. Hahn, Guthrie, Auditorium; Dolph D. McHenry, Cushing, 1801 Michigan Ave.; J. M. Postelle, Oklahoma City, 1801 Michigan Ave.; Ed E. Rice, Shawnee, Lexington; John R. Runyan, Ada, 2244 Michigan Ave.; T. C. Sanders, Shawnee, Lexington; Jos. M. Stephens, Hastings, 308 La Salle Ave.; J. M. Trigg, Shawnee, Lexington; John Asa Walker, Shawnee, Lexington; S. W. Aiken, Muskogee, Englewood; C. R. Day, Edmond; Everett S. Lain, Weatherford, 300 Michigan Ave.; P. P. Nesbitt, Muskogee, 2843 Indiana Ave.

The following, not members, but guests from abroad, are among those in attendance:

A. B. Atherton, Fredericton, New Brunswick, Great Northern; Raymond Samuel Brown, Winnipeg, Manitoba—St. Luke's Hospital; W. G. M. Byers, Montreal, Quebec—Great Northern;

G. W. Clendenan, Toronto, Canada—1305 West Fifty-fifth St.; E. Treacher Collins, London, England—Chicago Athletic Club; Philip E. Collins, Casino, N. S. Wales, Australia—285 West Monroe; Samuel T. Darling, Ancon, Panama; J. Halpenny, Winnipeg, Canada—Brevoort; M. Lauterman, Montreal, Canada—Great Northern; Edwin Aid Layton, Nanking, China—416 S. Prairie Ave., Austin; P. W. McConnell, Elbano, S. L. P. Mexico—Morrison; W. J. McCormick, West Toronto, Ontario—Hinsdale Sanitarium; Florence McCormick, West Toronto, Ontario—Sanitarium, Hillsdale, Ill.; John Mawer Pearson, Vancouver, B. C.—Wellington; Charles F. Philips, Ancon, Canal Zone; Prof. R. F. Ruttan, Montreal, Canada—27 Bellevue Place; J. A. Todd, Toronto Canada—Netherland; William Turner, Montreal, Canada—Annex; Alexander Vertes, Budapest, Hungary—362 S. Hermitage Ave.; Carl H. Von Klein, Chicago; W. J. Wilson, Toronto, Ontario—Netherland; W. A. Young, Toronto, Ontario—Annex.

REPORT OF THE WOMAN'S AUXILIARY.

The Woman's Auxiliary to the Oklahoma Medical Association had a very interesting session in the parlor of the Artesian Hotel at Sulphur, Okla., May 13, 1908. There was a good attendance, and all seemed interested in the organization.

The officers for the ensuing year are: President, Mrs. M. C. Bradford, Shawnee; First Vice President, Mrs. C. S. Bobo, Norman; Second Vice President, Mrs. C. B. Burford, Oklahoma City; Recording Secretary, Mrs. F. E. Warterfield, Holdenville; Corresponding Secretary, Mrs. W. G. Little, Okmulgee; Treasurer, Mrs. H. C. Todd, Oklahoma City.

After the election of officers some very interesting papers were read. "The Physician's Wife," by Mrs. Warterfield, was exceedingly good and deserves much praise.

"Our Organization—Our plan," by Mrs. J. R. Shine, was well handled and told what the Society wanted to do.

"Greetings from Oklahoma City," by Mrs. E. S. Ferguson, was heartily received.

When this, the first meeting, closed, we all bade goodbye with the hope that we would all be at the next meeting, in Oklahoma City, where we could renew the pleasant acquaintances formed, and make the Auxiliary stronger and larger.

Fibroma of the uterus near the cerosa does not contribute to an early memo-pause.—Murphy.

FOR SALE OR RENT

My home and practice of fourteen years' standing. Splendid opportunity. Will introduce successor to good practice at once. Will rent for one year and if satisfied will sell. Have a homestead and must leave soon.

Address with stamp,

DR. J. D. KERNODLE,
Coyle, Oklahoma.

A GOOD RESOLUTION

Oklahoma City, Oklahoma, June 15, 1908.
The Journal of the Oklahoma State Medical Association,
Guthrie, Oklahoma.

To the Editor: As a Committee of One, I am instructed to submit the following report for publication:

The Oklahoma County Medical Society, in regular session, recently discussed the patent medicine advertisements appearing in our daily papers above the names of some of Oklahoma City's leading druggists, many of the so-called remedies being guaranteed by the druggists who advertised them for sale.

A committee was appointed to make investigations, and after ascertaining the attitude of the druggists, to recommend a course of action for the Society. The committee submitted the following resolutions, which were unanimously adopted:

Whereas, Certain drug stores not only are widely advertising pernicious and fake remedies, even, in some instances, guaranteeing them personally, and even attempting to do counter prescribing; and

Whereas, These advertisements are full of dangerous recommendations and misstatements; and

Whereas, The druggists who recommend them are catering to the prescription trade of the profession for business, Therefore,

Be It Resolved, That hereafter the Oklahoma County Medical Society pledges itself to patronize no druggists who carry these fake advertisements and guarantee them, and that this resolution shall be binding on all members of the Oklahoma County Medical Society, and that, in honor to ourselves and the profession we represent, we all abide by this resolution inviolately.

Be It Further Resolved, That a copy of these resolutions be sent to all the druggists in Oklahoma City.

COMMITTEE,

Oklahoma County Medical Society.

As a result of this action two letters have come before the Society, both of which are here given in full:

(COPY)

D. D. D. COMPANY

D. D. D. Prescription 116 to 120 Michigan Street
Chicago, June 8, 1908.

The Westfall Drug Co., Oklahoma City, Okla.

Gentlemen: We have your favor of the 4th, in which you request us to leave out the personal guarantee of advertising copy run over your name. Immediately upon receipt of your letter last Saturday, we instructed our advertising agents, the Gundlach Advertising Co., to revise the schedule now running over your name, and shall see to it that in future all copy which contains objectionable matter such as this will not be used over your name.

Hoping this will be satisfactory, we remain

Yours truly,

F-B

D. D. D. CO.

CENTRAL DRUG CO.

Prescription Druggists.

25 N. Broadway

Oklahoma City, June 4, 1908.

The Oklahoma County Medical Society, Oklahoma City.

Gentlemen: Your communication of recent date, addressed to the druggists of Oklahoma City, received.

We have been doing business for the past twenty-five years and during that time have never "personally guaranteed" any patent medicine, but on the contrary, have invariably declined to do so by advertisement or otherwise when solicited by either manufacturer or patron.

Since locating in Oklahoma City, we have extended every courtesy to physicians who have called at our store, as has always been our custom, but we realize the fact that the physician is made of the same kind of clay as all other mortals, and that the almighty dollar is just as alluring to the former as to the latter, and we believe that those of the profession who have thrown their business to the druggist who gives them the largest rakeoff on their prescriptions will continue to do so, regardless of any position the druggist who refrains from doing the things complained of may assume.

In this connection it may be well to state that, while we are thankful for the recognition and support we have been accorded by some members of your association, it has not been as a result of any division of profits on prescription business.

While the matter of patents is under consideration by your association, we would respectfully inquire what is the difference between the physician who swallows the statement of a Mulford, P. D., or any of that class of salesmen, as to the formula and efficacy of a multitude of pharmaceuticals manufactures by those concerns, and the druggist who sells a line of medicines, the formula of many of which is printed on the package?

Respectfully, CENTRAL DRUG CO.,

(Signed) By HENRY CROSBY, Prop.

One of these letters, addressed to Westfall Drug Co., shows that they are having the guarantee struck from some of their advertising.

The other, coming from a druggist of experience, may help us to "see ourselves as others see us," and should be of vital interest to the profession at large. Every physician who has the interests of his profession at heart should welcome just criticism, whether or not he is classed among the guilty.

We desire that it be understood that this is not an attack upon the druggists, but, rather, a movement in behalf of the public, and one in which every fair minded, conscientious druggist will gladly join, when once its true significance is understood.

The druggists and physicians are, to a great extent, dependent upon each other, and should foster each other's interests as far as possible when they are consistent with the public good.

OKLAHOMA COUNTY MEDICAL SOCIETY

By L. J. MOORMAN, Secretary.

TWO LIVE COUNTY SOCIETIES.

Below is the program of a joint meeting of Adair and Sequoyah County Medical Societies, to be held at Stilwell on July 7, 1908, beginning at 10 a. m. This is a very good way, we believe, to keep up an interest in county society work, and more of these joint meetings could be profitably held.

10 A. M.

Call to order by the Chairman.

"Be an Optimist from the Standpoint of a Physician".....

.....R. T. Kelleam, Sallisaw
Discussion.

"Advantages and Disadvantages of a Country Doctor"....

.....S. B. Jones, Sallisaw
Discussion.

"How to Succeed as a Young Doctor"....J. W. Morris, Sallisaw

Discussion.

NOON.

1:30 P. M.

"Some Surgical Diseases of the Female Pelvis".....

.....Le Roy Long, South McAlester
Discussion.

"Delivery of Adherent Placenta at Term".....

.....Sam A. McKeel, Sallisaw
Discussion.

"General Resume of Perperal Eclampsia".....

.....O. W. Farrar, Stilwell
Discussion.

"Report of a Case".....J. S. Allison, Evansville, Ark.

Discussion.

"Effect and Uses of Alcohol".....D. A. Beard, Westville

Discussion.

"Posterior Urethritis".....Jos. A. Patton, Stilwell

Discussion.

ADJOURNMENT.

7:30 P. M., Banquet.

We earnestly desire to have a full attendance and hope to make the meeting a profitable one, as well as full of interest.

Hotel accommodations will be ample, and so far as practicable, will be arranged for in advance of the meeting.

Tubercular ulcer of the intestine is rarely perforative.—Murphy.

Very foul smelling pus flowing from the vagina, very probably comes from an appendiceal abscess that has ruptured into the cul-de-sac.

Murphy says that tuberculous infection never causes death, that it is a mixed infection.

PERSONALS.

Among the Oklahoma doctors who remained in Chicago after the recent meeting of the American Medical Association were Drs. C. S. Bobo, of Norman; E. S. Lain, Weatherford; J. M. Trigg, Shawnee; J. A. Walker, Shawnee; C. R. Day, Edmond; L. H. Huffman, Hobart; L. A. Hahn, Guthrie; T. C. Sanders, Shawnee; T. J. Long, Atoka.

Dr. E. S. Lain is in Chicago doing some post graduate work, and when he has finished there he will go to New York for several months' work there. The doctor is preparing himself for the special work of Electro-Therapeutics and diseases of the skin, and will locate in Oklahoma City when he returns to the state.

Dr. C. R. Ray is taking special work in dermatology in Chicago and New York, and we understand will open an office in Oklahoma City for the practice of that line of work.

At the recent meeting of the Board of Regents of the State University, Dr. C. S. Bobo of Norman, ex-president of the State Medical Association, was elected Dean of the Medical Department of that institution. We think that a better choice could not have been made for that position.

Dr. W. L. Capshaw of Norman, secretary of the Cleveland County Medical Society, was chosen professor of anatomy in the Medical Department of the State University, by the Board of Regents at their recent meeting. Dr. Capshaw is a promising young physician, and his friends are very glad to see him thus honored.

Among the Oklahoma doctors who visited the Mayos, after the meeting of the American Medical Association, were Drs. C. S. Bobo of Norman, and J. A. Walker of Shawnee.

If a woman over fifty years of age begins to have uterine hemorrhages, after the menses have been absent for several years, she most surely is suffering from carcinoma of the uterus.

Murphy says an inelastic support should be used after an operation for a large ventral hernia.

Dr. Frank Billings says, never give a patient any medicine for asthma that contains cocaine. The reason is obvious.

If the menstrual flow with the woman over forty-five increases instead of decreases, she probably has fibroma of the uterus.

After an operation for a large ventral hernia, put the patient to bed, with the head low, and keep him there for four weeks.—Murphy.

Never use a sharp curette in the uterus.—Murphy.

Dr. Morris made the statement, at the last meeting of the American Medical Association, that he had operated on 100 consecutive cases of appendicitis with but one death, and that they were not selected cases, either; that he operated on every case that was breathing when he reached him.

Eight out of ten women who have borne children have a movable kidney; one out of ten or twenty of these, to a pathological degree.—Murphy.

AN ACT

TO DEFINE AND REGULATE THE PRACTICE OF MEDICINE; TO CREATE A BOARD OF MEDICAL EXAMINERS FOR THE EXAMINATION AND LICENSING OF PHYSICIANS AND SURGEONS AND TO PROVIDE FOR THEIR PROPER REGULATION, AND TO PROVIDE FOR THE REVOCATION OF THEIR LICENSE, TO REQUIRE ITINERANT VENDORS TO PROCURE A COUNTY LICENSE AND TO FIX SUITABLE PENALTIES FOR THE VIOLATION OF THIS ACT, AND REPEALING LAWS IN CONFLICT HEREWITH.

Be it Enacted by the People of the State of Oklahoma:

Section 1. A State Board of Medical Examiners is hereby established, to consist of nine members, learned in medicine, legal and active practitioners in the State of Oklahoma, who shall have resided and practiced medicine in the State under a diploma from a legal and reputable college of medicine of the school to which said practitioner shall belong, for more than three years prior to their appointment, and no one of the schools may have a majority on said Board.

Provided, that for the societies represented by only one member, there shall be one alternate appointed by the Governor to act at the meeting of said Board in case of the absence or inability of the regularly appointed member. Said alternate to derive the same benefits and to subscribe to the same oath of office as the regularly appointed members of said Board. The Board shall be appointed by the Governor of the State of Oklahoma within thirty days after this act becomes effective, and the term of office therefor shall be four years, or until a successor is appointed and qualified.

Provided, that the term of office of the first Board shall expire with the term of the present Governor in 1911. Vacancies occurring at any time on the Board shall be appointed by the Governor of the State of Oklahoma as provided for in this section, from a school of medicine from which the vacancy occurs, so that at no time shall one school have a majority vote of said Board. It shall require a majority vote of the Board to carry any motion or resolution; to adopt any rule, or to pass any measure, or to issue a certificate to practice surgery and medicine in this act provided. No member of said Board shall be a stockholder or member of the faculty or board of trustees of any medical college or school.

Sec. 2. Each member of the Board shall, before entering upon the duties of his office, take the constitutional oath of office from someone qualified to administer oaths, and shall, in addition, make oath that he is a graduate of medicine, and a legally qualified practitioner of medicine and surgery in the State; that he has been engaged in the active practice of medicine and surgery in this state, or in the territory formerly known as the territory of Oklahoma, or what was formerly known as Indian Territory, for a period of three years preceding his appointment.

Sec. 3. The State Board of Medical Examiners shall, immediately after the members shall qualify, organize by electing a president, vice-president, secretary and treasurer. The president of said Board shall preside at all of the meetings of the Board and perform such other duties as the Board by their rules may prescribe. The vice-president shall perform all the duties of the president during the latter's absence or disability. The secretary

shall keep a record of the proceedings of the Board and perform such other duties as are prescribed in this Act, or which may be prescribed by said Board. The treasurer shall, in order to qualify, give bond in the sum of \$5000, the same to be approved by the Governor and filed with the Secretary of State. It shall be his duty to receive and care for all money from the secretary, receipting him therefor and to pay out the same upon written order of the secretary, countersigned by the president.

Sec. 4. The Board of Medical Examiners shall preserve a record of the proceedings in a book kept for that purpose, showing name, age, place and duration of residence, of each applicant; the time spent in medical study in respective medical schools, and the year and school from which degrees were granted. Said register shall also show whether applicants were rejected or licensed, and shall be prima facie evidence of all matters concerned therein. The secretary of the Board shall, on March the first of each year, transmit an official copy of said register to the Secretary of State for permanent record, a certified copy of which, with the hand and seal of the Secretary of the State Board or the Secretary of State, shall be admitted in evidence in all courts of the state.

Sec. 5. Said Board shall hold regular meetings every three months in some convenient city or town in this state for the consideration of certificates, and may transact such other business as may properly come before it, and shall have the power to adjourn from time to time, until its business is completed. Notice of the regular meeting of the Board shall be given thirty days previous to the meeting of said Board, by publication in at least one daily newspaper in each supreme judicial district. Said Board shall procure a seal for its use and shall receive through its secretary applications for certificates provided to be issued under this Act.

Sec. 6. Said Board may from time to time, adopt such rules as may be necessary to carry into effect the provisions of this Act. Any member of the Board may administer oaths in all matters pertaining to the duties of said Board, and the Board shall have authority to take evidence on questions pertaining to the enforcement of this Act.

Sec. 7. Every person before practicing medicine and surgery or any of the departments of medicine and surgery in this State, must have the credentials herein provided for. In order to secure such credentials, he must produce satisfactory evidence of a good moral character, and a diploma issued by some legally chartered medical school or college. The requirements of such medical school or college shall have been at the time of granting such diploma in no particular less than those prescribed by the American Association of Medical Colleges, or the Southern Association of Medical Colleges in that year in which the said diploma was granted. Or he must show satisfactory evidence of having possessed such diploma or license from some legally constituted institution which grants medical and surgical licenses only on actual examinations, or satisfactory evidence of having possessed such license or diploma. He must accompany said diploma or license with an affidavit showing that he is the person therein named and that the diploma or license was procured in the regular course without fraud or misrepresentation of any kind, such affidavit to be taken before any person authorized to administer oaths. The same shall be attested under the seal of such officer, if he has a seal. In addition to such affidavit, the Board shall hear such information as in its discretion it may deem proper as to any of the matters embraced in said affidavits. If it should appear from the evi-

dence that said affidavit is untrue in any particular, or if it should appear that the applicant is not of good, moral character, the application must be rejected; provided, that osteopaths shall be subject to the above regulations with the exception that instead of the diploma hereinbefore mentioned, they shall be required to file a diploma from a legally chartered college of osteopathy in good repute as such, having a course of instruction of at least twenty months, requiring actual attendance thereon, and after 1907 of three years of nine months each. In addition to the requirements above set out, each applicant for a certificate, upon the payment of a fee of \$15.00 to the Secretary of the State Board of Health, must be personally examined by said Board as to his qualifications to practice medicine and surgery. The examination must be conducted in the English language, and shall be in whole or part in writing, and shall be on the following branches, to-wit: Anatomy, histology, physiology, chemistry, physical diagnosis, bacteriology, pathology, medical jurisprudence, toxicology, surgery, gynecology, and obstetrics, the branches peculiar to the teaching of the school attended by the applicant, and such other additional subjects made necessary by the advance in medical education as the Board may designate or deem advisable to test the scientific and practical knowledge of the applicant; provided the applicant shall be examined in theory and practice, materia medica and therapeutics by those members of the Board of examiners who represent the school of practice to which the applicant professes to belong; and be it further provided, that those legally qualified to practice medicine in that school known as osteopathy shall not be permitted to administer medicines internally in the treatment of diseases except in the uses of anesthetics in the practice of surgery and obstetrics, and in cases of emergency. The credentials of applicants, which shall be sworn to by the applicants, relating to their general reputation, their preliminary education, and the course of study that they have pursued; the degrees they have received, the number of years they have been engaged in the lawful practice of medicine; their experience in general hospitals, the medical department of the army, public health and marine and hospital service, licenses granted them by other states and countries, and their experience as teachers of medicine. All these shall be given consideration by the Board in conducting its examinations.

Provided that nothing herein contained shall be construed to prevent mid-wives from practicing, in cases of emergency.

Provided further, that those who use herb and roots and treat diseases without compensation shall not be required to register.

Provided, however, that all physicians who have lawfully registered since statehood shall not be required to re-register under this Act.

Sec. 8. The said Board may, at its discretion, accept and register upon payment of the registration fee without examination of the applicant, any certificate which shall have been issued to him, or her, by the State Board of Examiners of other states, territories, or the District of Columbia;

Provided, however, that the legal requirements of such medical examining Board shall have been, at the time of issuing such certificate, in no degree or particular less than those of Oklahoma at the time when such certificate shall be presented for registration to the Board created by this Act.

And provided further, that the provisions provided in this Act shall be held to apply only to such of said medical examining boards as accept and register the certificates granted by this Board without examination by them

of the one holding such certificate. Each applicant upon making application shall pay to the secretary of the Board, a fee of \$15.00 which shall be paid into the treasury of said Board by its secretary.

Sec. 9. The said Board of Medical Examiners shall grade and conduct all examinations and all applicants who shall make an average grade of seventy per cent and a minimum in any one branch of fifty per cent, and who shall have complied with the conditions of Section VII of this Act, shall receive the certificate entitling such applicant to practice medicine in this State, subject to the performance by the said applicant of the heretofore preliminary conditions in this Act required.

The applicants shall be known by numbers so that no member of said Board shall be able to identify the applicants with their respective papers until said papers shall finally be graded. The questions and answers with their respective grades attached shall be preserved for two years and shall be open to public inspection by all persons interested. In case of failure to secure the per centage required for a passing grade, the applicant may take another examination within twelve months without extra cost. Temporary permits may be granted and shall be effective until the next meeting of the Board unless sooner revoked for cause;

Provided, that the applicant shows good faith by payment to the Secretary of the State Board of Health, the regular examination fee and delivering to the Board such credentials and other evidence of intentions to become a bona fide resident of the state, as the Board may require.

Sec. 10. When any applicant has shown himself to be possessed of the qualifications herein required and has successfully passed the examination, a certificate must be issued to him by said Board authorizing him to practice medicine and surgery in this state. Said certificate shall be signed by each member of the Board and sealed with the seal of said Board; provided, however, that all physicians and surgeons who are legally licensed and practicing in Oklahoma Territory on the 16th day of November, 1907, shall be required to register with the same Board, but shall be exempt from examination, except as to their credentials, and shall be entitled to re-registration with the said Board, and certificate of registration free of cost; provided, however, that said physician and surgeon desiring re-registration, shall make an application therefor within ninety days after this Act becomes operative, such physician and surgeon failing to make such application within the said ninety days, will be considered an illegal practitioner, and shall be dealt with as herein provided, for the violation of this Act.

Sec. 11. Every person holding a certificate authorizing him to practice medicine and surgery in this State, must have it recorded in the office of the County Clerk, as herein provided. Every such person on change of residence must have his certificate recorded in a like manner in the county to which he shall have changed his residence, and said certificate shall be displayed in his office as evidence of having complied with the law. The absence of such record shall be prima facie evidence of the want of possession of such certificate, and every such person holding such who shall practice medicine and surgery or attempt to practice medicine or surgery without first having recorded same with the county clerk, as herein provided, shall be deemed guilty of a misdemeanor.

Sec. 12. It shall be the duty of the County Clerk of the several counties of the State, immediately on taking effect of this Act, to purchase at the expense of the County, a suitable book to be known as the "Medical Register"

for the purpose herein set forth; said record shall be open to public inspection during office hours. The County Clerk shall receive compensation in the manner provided in the Statutes of Oklahoma for the recording of similar documents.

Sec. 13. Said Board must refuse a certificate to any applicant guilty of unprofessional conduct, but before such refusal, the applicant must be cited by citation signed by the secretary of the Board and sealed with its seal. No such citation shall be issued except upon a sworn complaint filed with the secretary of the Board charging the applicant with having been guilty of unprofessional conduct and setting forth the particular act constituting such unprofessional conduct. Upon the filing of such complaint the secretary must forthwith issue a citation and make the same returnable at the next session of the Board, occurring at least thirty days next after the filing of the complaint. Such citation shall notify the applicant of the time and place, when and where the matter of such unprofessional conduct shall be heard, and that particular unprofessional conduct with which the applicant is charged. The applicant shall file written answer under oath within twenty days after the service on him of such citation, or default will be taken against him and his application for certificate refused. The attendance of witnesses shall be compelled at such hearing by subpoenas issued by the secretary of the board under its seal, and said secretary shall, in no case, refuse to issue any such subpoena upon the fee of twenty-five cents being paid to him for its issuance.

Said citation and said subpoenas shall be served in accordance with the statutes of this state, then in force, as to the service of citation and subpoenas generally, and all the provisions of the statutes of this state, then in force, providing for the manner of serving subpoenas, the fact of such refusal shall be certified by the secretary of said board under the seal thereof, to the county court of the county in which the service was had, and said court shall proceed to hear said matter in accordance with the statutes of this state then in force as to contempt for disobedience of its own process. In all cases of illegal or unprofessional conduct, arising under the provisions of this act, and all the provisions of the statutes of the state then in force as to the taking of deposition are hereby made applicable to the taking of testimony under this act. If the applicant shall fail to file with the secretary of the said board his answer under oath to the charges made against him within twenty days after the service on him of said citation, or within such further time as the board may give him, the charges on the face may be deemed sufficient by the board, and the default may be entered against him and his application refused.

Whenever any holder of a certificate issued as herein provided, shall be guilty of unprofessional conduct as defined by this Act, and such unprofessional conduct is brought to the attention of the board granting said certificate in the manner herein pointed out, it shall be their duty to, and they must, at once, revoke the same, and the holder of such certificate shall not thereafter be permitted to practice medicine and surgery, or in any other departments of medicine and surgery in this state. But no such revocation shall be made unless such holder is cited to appear and the same proceedings are had, as are hereinbefore provided in this section, in case of refusal to issue certificates. The accused party, at the time he presents his answer for filing, shall deposit with the secretary his certificate, and unless he does so, the secretary must not file his answer, and default may be

thereon entered against him and his certificate revoked if the charges, on their face, be deemed sufficient by the board.

When the certificate is revoked, the secretary of the board, if the certificate has been deposited with him, shall write across the face thereof, in red ink, the fact of such revocation, and shall file such certificate so revoked among the archives of his office under the seal of the board to the county clerk of the county of which the certificate of the person whose certificate has been revoked is recorded, and said county clerk must thereupon write on the margin or across the face of his register the fact and day of such revocation, in accordance with this act.

From the time of the revocation of this certificate the holder shall be disqualified from practicing medicine in this state.

The words "Unprofessional Conduct," as used in this act, are hereby declared to mean:

First, the procuring or aiding, or abetting in procuring a criminal operation.

Second, the obtaining of any fee on the assurance that an incurable disease can be permanently cured.

Third, the wilful betrayal of a professional secret to the detriment of a patient.

Fourth, all advertising of medical business in which grossly improbable statements are made that are calculated to mislead the public.

Fifth, all advertising of any medicine or means whereby the monthly periods of women can be regulated or menses re-established if suppressed.

Sixth, conviction of any offenses involving moral turpitude.

Seventh, habitual intemperance, and habitual use of habit forming drugs.

Eighth, the employment of what is commonly known as "cappers" or "steerers" in procuring practice. These specifications are not to exclude other acts for which licenses may be revoked on the ground of unprofessional conduct.

Sec. 14. Said board shall fix the salary of the secretary, not to exceed One Hundred and Fifty Dollars (\$150.00) per year, and the other members of said board shall receive not to exceed Six Dollars (\$6.00) per diem for each and every day of actual service in the discharge of their duties under this Act, and the necessary traveling expenses and all money in excess of their actual expenses of the board, as provided by this Act, shall be paid annually into the state treasury.

Sec. 15. Any person practicing medicine or surgery in this state without having, at the time, a valid, unrevoked certificate, as provided in this Act, shall be deemed guilty of a misdemeanor and shall be fined not less than One Hundred Dollars (\$100.00) nor more than Five Hundred Dollars (\$500.00), or by imprisonment for a term of not less than sixty days, nor more than one hundred and eighty days, or by both such fine and imprisonment, and each day's practice shall constitute a separate offense. All fines under the provisions of this section shall be paid into the road and bridge fund of the county wherein the conviction is secured.

Sec. 16. Any person who shall render professional services as a physician in this state, without first complying with the provisions of this act shall, in addition to other penalties prescribed herein, receive no compensation for such services; and no indebtedness shall be created thereby against the person for whose benefit such services shall be rendered.

Sec. 17. Every person filing for record, or attempting to file for record, the certificate issued to another, falsely claiming himself to be the person entitled to the same, shall be guilty of a felony, and upon conviction thereof shall be subject to such penalties as are provided by the laws of this state for the crime of forgery.

Sec. 18. The following persons shall be deemed as practicing medicine and surgery within the meaning of this Act:

First, those who prescribe or administer any drug or medicine now or hereinafter included in materia medica in the treatment of disease, injury or deformity of human beings.

Second, those who practice major or minor surgery in the treatment of disease, injury or deformity of human beings, except dealers in surgical, dental or optical appliances.

Sec. 19. It shall be unlawful for any person to sell or offer for sale, by peddling or offer for sale from house to house, or to offer for sale by public outcry, or to be vending in the streets, any drug or medicine, pharmaceutical preparation, chemical or any composition or combination thereof, or any implement or appliance or other agency for the treatment of disease, injury or deformity, or by writing or printing or any other method to publicly profess to cure or treat any disease, injury or deformity by any drug, nostrum, manipulation or other expedient, without previously obtaining a license therefor as herein provided. An annual county license fee of fifty dollars is hereby levied upon all such itinerant vendors doing business in any county in this state. Said sum shall be paid to the county clerk, who shall pay the same over to the county treasurer for the use of the county road and bridge fund of said county. The county clerk shall thereupon issue a license showing the applicant has paid his license fee and is authorized to do business as above described in this section, in that county for one year. Provided, however, that this shall not prevent incorporated towns or cities from levying an additional license on such vendors of aforesaid articles or goods. Any person who shall violate this section shall, upon conviction, be fined not less than fifty dollars nor more than one hundred dollars, or imprisonment; said fine to be turned over to the county treasurer for the use of the county road and bridge fund.

Sec. 20. Said board of medical examiners shall, annually, on or before the first day of January, file with the Governor a correct written report of all their proceedings, and account for all moneys received and paid out by them during the year.

Sec. 21. Any person who has been aggrieved by any act, rule or regulation of said board shall have his right of action to have such issue tried in the district court of the county in which some member of the board shall reside.

Sec. 22. Any person who shall violate any of the provisions of this Act, except as otherwise provided, shall be fined not less than Ten Dollars (\$10.00) nor more than One Hundred Dollars (\$100.00) for each offense.

Sec. 23. Sections 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10, of Chapter 5, of the Session Laws of the Territory of Oklahoma, 1893, and Sections 1, 2, 3, 4, 5, 6, 7 and 8, of Chapter 22, of the Session Laws of the Territory of Oklahoma, of 1893, and Section 15, of Chapter 28, of the Session Laws of the Territory of Oklahoma, 1897, together with all Acts and parts of Acts in conflict with this Act, are hereby repealed.

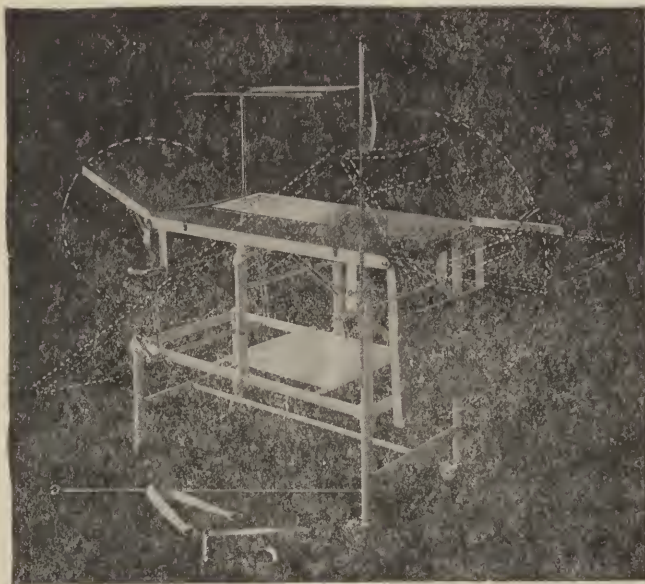
Approved June 10, 1908.

Officers of County Societies.

County.	President.	Address.	Secretary.	Address.
Adair.....	T. P. Allison,	Westville.	C. M. Robinson.....	Stillwell
Alfalfa			T. K. Slaton.....	Helena
Atoka.....	W. A. Logan,	Lehigh.	L. S. Willour.....	Atoka
Beckham...			Harry O. Jones.....	Elk City
Blaine.....	N. P. H. White,	Watonga	J. L. Campbell.....	Watonga
Bryan			D. Armstrong.....	Mead
Caddo			Chas. R. Hume.....	Anadarko
Canadian....	R. E. Runkle,	El Reno.	R. F. Koons.....	El Reno
Carter.....	R. S. Willard,	Brock.	A. E. Ballard.....	Lone Grove
Cherokee			W. G. Blake.....	Tablequah
Cleveland..	M. T. J. Capshaw,	Norman	W. L. Capshaw.....	Norman
Comanche			David A. Myers.....	Lawton
Craig	D. B. Stough,	Vinita	Louis Bagby.....	Vinita
Custer			C. A. Thomas.....	Weatherford
Delaware....	B. F. Collins,	Needmore	R. L. Caldwell.....	Grove
Garfield ..			J. H. Barnes.....	Enid
Garvin.....	H. P. Wilson,	Wynnewood	N. H. Lindsay.....	Pauls Valley
Grady.....	J. E. Stinson,	Chickasha	G. H. Thrailkill.....	Chickasha
Grant			D. D. Roberts.....	Nashville
Greer			Porter Norton.....	Mangum
Hughes.....	A. M. Butts,	Holdenville	H. A. Howell.....	Holdenville
Jackson.....	D. C. Buck,	Eldorado	Emory S. Crowe.....	Olustee
Jefferson....	W. A. Wilson,	Waurika	A. R. Lewis.....	Ryan
Johnson...W. W. Vannoy,	Tishomingo		W. B. Reeves.....	Wapanucka
Kingfisher..	Ira G. Stone,	Kingfisher	Chas. W. Fisk.....	Kingfisher
Kiowa.....	G. W. Stewart,	Hobart	John K. Dale.....	Hobart
Latimer			H. G. Dalby.....	Wilburton
LeFlore.....	B. H. Woodson,	Monroe	R. L. Morrison.....	Poteau
Lincoln.....	W. G. Bisbee,	Chandler	W. H. Davis.....	Chandler
Logan.....	C. S. Petty,	Guthrie	R. V. Smith.....	Guthrie
Love	W. J. Gray,	Thackerville	J. D. Batson.....	Marietta
McClain.....	G. S. Barger,	Wayne	G. M. Tralle.....	Purcell
McCurtain...	A. S. Grayden,	Idabel	W. B. McCaskill.....	Idabel
McIntosh....	G. W. West,	Eufaula	A. B. Montgomery.....	Checotah
Marshall....	T. A. Blaylock,	Madill	John A. Haynie.....	Aylesworth
Mayes			Carl Puckett.....	Pryor Creek
Murray			G. W. Slover.....	Sulphur
Muskogee...	Sessler Hoss,	Muskogee	S. W. Aiken.....	Muskogee
Okfuskee			Benton Lovelady.....	Okemah
Oklahoma...W. T. Salmon,	Oklahoma		L. J. Moorman.....	Oklahoma
Okmulgee....	H. E. Breese,	Henryetta	Warren Newel.....	Okmulgee
Osage.....	Ira Mullins,	Hominy	H. E. Reece.....	Hig Heart
Ottawa.....	L. W. McWilliams,	Afton	R. H. Harper.....	Afton
Payne			S. M. Barnes.....	Stillwater
Pittsburg....	J. W. Smith,	McAlester	Wm. Fowler.....	Alderson
Pottawatomie.	J. A. Walker,	Shawnee	W. O. Bradford.....	Shawnee
Rogers			Caroline Bassman.....	Claremore
Sequoyah....	P. C. Conn,	Gans	A. E. Hart.....	Sallisaw
Stephens			S. H. Williamson.....	Duncan
Texas.....	James McMillin,	Tyrone	R. B. Hayes.....	Guymon
Tillman....	V. P. Priestly,	Frederick	Jas. D. Osborn, Jr.....	Frederick
Tulsa.....	R. S. Wagner,	Tulsa	C. T. Hendershot.....	Tulsa
Washita....	A. M. Sherburne	Cordell	Fred C. Sheets.....	Bartlesville
Washtn...G. F. Woodring,	Bartlesville		A. H. Bungardt.....	Cordell
Woods.....	J. A. Bowling,	Alva	Elizabeth Grantham.....	Alva
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JOURNAL

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VOL. 1

GUTHRIE, OKLAHOMA, AUGUST, 1908

No. 3

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Application made for entrance at the Postoffice at Guthrie, Oklahoma, as second class mail matter.

This is the Journal of the Oklahoma State Medical Association, and every member is entitled to a copy every month; and if any member does not receive his Journal promptly, the matter should be reported to this office.

Communications of all kinds should be addressed to the Editor.

THE McCORMACK OATH

"In the silence of my room I lifted my hand and took a solemn oath that while God lets me live I would help any Doctor who crossed my path, whether he deserved it or not, whether he appreciated it or not; and that under no circumstances would I say an unkind word of any member of the profession, and to the laity especially, would speak well of them, cultivating a spirit of kindness and fraternalism that I might do so."

Does this seem to be asking a great deal of the doctor? and yet it is only another form of the old golden rule.

Suppose for a moment that this oath should be subscribed to by every doctor in the state of Oklahoma, and strictly carried out for one year, does any one suppose that any physician in the state would want to go back to the old way, of David Harum's golden rule for horse traders, "do unto the other fellow as he would do unto you and do it first."

What a snap the members of our Council would have in their work as organizers. On going to a county to organize a Society, instead of finding every fellow suspicious of every other fellow, and unwilling to be in the same Society with perhaps any other doctor in the county, so that some times it almost seems that there should be almost as many Societies in the county as there are doctors, in order that each doctor in the county need not feel that he is in a society in which there are members who are not just the thing; he would find every doctor in the county ready to concede that perhaps he really did not have a monopoly of all the virtues in the profession of his county, and willing to admit that perhaps the other fellow has some good in him, and is really only trying to keep even with every other fellow in the county, and be ready to meet his fellow physicians on neutral grounds, and jointly go to work to try to help those

who are perhaps a little inclined to break over the rule occasionally, and thus, incidently, better the condition of every doctor in the county, and again, incidently, better the condition of the people from whom the doctors make their living. For there is no doubt but that the people who are unfortunate enough to be placed in a community where the doctors are fighting each other all the time, are really to be pittied.

No sane man will contend that a state of suspicion and strife and bickering is one that is conducive of good work, and calculated to bring out the best in the man or his work. Too much time is spent in watching ones competitors, and not enough in trying to learn how to really be able to give your patrons just a little beter service than the other fellow.

What a world of trouble has been caused by the most damnable spirit of "getting even." Did you ever know of any man worthy of the name, who had so far forgotten his manhood, as to allow himself to do some little mean act to "get even" with the other fellow, who did not feel down deep in his heart, when alone with his conscience, that he had really degraded himself, and that instead of enjoying the "getting even" he knew that he had done himself a greater wrong, than had the fellow with whom he supposed he was "getting even" had done him.

If, when in a sour mood, and tempted to say something uncomplimentary about a brother doctor, whom we imagine has done us some wrong, we will apply the principles of chemistry, mind chemistry if you will, by introducing some kindly alkali and thereby, at least neutralize the desire to say something mean, even if we do not say something good, how much better we will feel after it is all over with.

A wise writer, Professor Elmer Gates, once said, "For each bad emotion there is a corresponding chemical change in the tissues of the body. Every good emotion makes a life-promoting change. Every thought which enters the mind is registered in the brain by a change in the structure of its cells. The change is a physical change more or less.

Another writer has said, "That man is truly great who at will can master his moods; who knows enough of mental chemistry to neutralize a fit of the "blues" with the opposite thought, just as a chemist neutralizes an acid that is eating into his flesh, by applying an alkaline antidote.

I have arrived at that point in life that it pains me to sit and hear some layman, or more likely some laywoman, abuse some brother doctor, for I always feel that more than likely that the same process is going on in some other part of the community, in which I am the one that is getting the "fits" for I have been in practice long enough to have learned that the other fellows do not get all of the abuse by any means. When people come to me with their mouths full of abuse of the doctors, who have been treating them, the first thing I attempted to say to them is, have you paid the other doctors? and I always hesitate to prescribe for such folks, for well do I know that my turn

is most sure to come later on in the game, and I have told more than one of this class of patients my fears in the case.

Now let us all take the oath, to hold good until we get every eligible doctor in the state into the State Association, and then if any one wishes to go back to the old methods he can do so.

But one, or perhaps more than one will say; the very fellows that need most to take this oath will not do it, which is too true, but the fact, however, that those fellows prefer to remain in the ditch, does not justify the rest of us in getting down on a level with them.

Call this preaching, if you will, but I am convinced that it is just plain, good business horse sense. Try it, and see if I am not right.

"Fortunately for us, the gold in human nature remains gold, whatever its alloys from base contact; and it is worth mining for though there be but a grain of it to a ton of dross."

THE AWAKENING

It is very encouraging to see that after centuries of struggling on the part of the medical profession, trying to convince the public that it is really worth while to spend part of the means of the people in preventing disease, instead of all of it in taking care of the sick, after carelessly allowing them to get sick, and an additional amount in funeral expenses for those who have needlessly died, to finally see the lay press and the people generally, taking an interest in these matters.

Both of the political parties have, in a measure, taken notice of the fact that there is really something in the prevention of disease.

The following editorial which is taken from "Colliers" is only a continuation of the fight that paper has been waging against fraud in things medical, and its support of the medical profession in the long and continuous effort in behalf of the public, in the prevention and cure of disease.

Let the members of our profession hold up the hands of all who are willing to join us in this our life work.

What It Means

How many understand the real meaning of disease in the universe? What imagination can grasp even the direct suffering it causes, to say nothing of the indirect? How much does the decreased death-rate of children mean to women in this world? The population in the future will be kept up with a fraction of the births needed in the past. Many times fewer small children will die; the length of life for adults will be still further extended; those who live will know infinitely less suffering. The average length of life has already been increased from twenty-one and a quarter years in the sixteenth century to forty and a half in the eighteenth. The death rate from diphtheria has been reduced from forty or fifty per cent to less than ten. The British in the Boer war lost from typhoid more than those killed by

wounds received in battle. In the Spanish war one-fifth of the soldiers in our national encampments had typhoid, and the present situation leads experts to believe that in another war this record would be repeated. How easy it is to avoid, however, was shown by the Japanese. General Oku, in an active campaign of seven months had 187 cases to 1,000,000 men. Furthermore, the Japanese learned so much between the Chinese war and the Russian war that dysentery was about one-sixth as prevalent, malaria about one one-thousandth, and the cholera cases diminished from 7,667 cases to none. Many of us are able to remember when yellow fever raged: in 1878 in Memphis, a city of 19,500 people, there were 17,600 cases of this disease, with 6,000 deaths. General Wood said that the discovery of the method of transmission of this disease resulted in the saving of more lives each year than were lost in the Cuban war. Before Jenner's discovery, small-pox killed one-tenth of all the people on the globe and disfigured nearly twice as many. Since then it has existed only because of prejudice against vaccination. In Prussia, where vaccination is compulsory, the mortality has been reduced to one in about 300,000. In Paris, on the other hand, where vaccination is not compulsory, between 1870 and 1895 there were over 20,000 deaths. Before the discovery of Yersin's and Haffkine's serums the mortality from bubonic plague was over 90 per cent. In London, alone, in 1348, 1000,000 fell victims to the disease. There are a few examples which show what intelligent study means in the sum of human misery and happiness.

Expressed in Dollars

Now put it into money, this same saving to the race through intelligent observation. Hunter has estimated the average cost of preparing a man for usefulness at \$1,500. The loss of 400,000 workers, which occurs every year from diseases that are preventable, represents, therefore an annual loss to the country of \$600,000,000. On Hunter's estimate, the lowered death-rate of England in about ten years would mean a capital saved of \$1,285,206,000. The epidemic of 1891-92 cost Philadelphia an estimated loss of about \$22,000,000—to railways, hotel keepers, merchants, manufacturers—for care of sick, loss of time and expense of burial. A policy of prevention, on the other hand, would have cost about \$700,000. The discovery of the yellow-fever mosquito is supposed to have saved us more money in each single year than was spent upon the entire Cuban war. If we could master tuberculosis, the saving in money in the United States would be \$330,000,000 per year. Is it any wonder, then, that the best physicians are heart and soul in the study of prevention? Dr. N. E. Ditman, in the Columbia "Quarterly" for June, has a powerful plea for a school of sanitary science and public health. To the large body of millionaires who are regular Collier subscribers, that essay is sincerely recommended.

A PRACTICAL JOKE PROVES FATAL

The uncertainty of the effects of electricity, was again demonstrated in a most distressing manner, resulting in the death of a young man by the name of McReight on the evening of July 17th, at the Pioneer Cotton Mills in this city.

Just north of the mills is located a large reservoir, made of concrete in which is kept a large quantity of water to be used in case of fire. At one side of this basin arises an iron pipe which extends somewhat higher than a man's head, then turns down, and through this pipe the water flows into the reservoir. From this pipe a drinking cup is suspended by a small chain, from which some of the employees sometimes drank, although plenty of ice water was always provided inside of the mills.

On the afternoon of the 17th, the engineer, with the help of some of the employees attached one of two wires, than hung from an electric circuit that passed along the side of the building near the reservoir, to the upper part of the water pipe, and the other one to a copper plate placed on the ground, where one drinking from the cup would necessarily stand, the plate being hidden from view with a slight covering of cinders. A switch was placed just inside a window commanding a view of the drinking cup.

It is said that several persons drank from the cup with only slight shocks, and one man testified at the inquest that he drank from the cup without having felt any effect whatever.

Young McReight, who was about 16 years of age, of average size and in perfect health, was dared to take a drink from the cup, and not knowing anything about the joke, he went to the cup and it is said took hold of the water pipe with one hand when he immediately fell to the ground, apparently dead. A physician was called, who reached the victim about 15 or 20 minutes after the accident, and found respiration completely suspended, and the very slightest heart action, and the face very cyanotic. Artificial respiration was immediately instituted, and hypodermic injections of strychnine given, with no effect other than reducing, to a considerable extent the cyanosis.

Artificial respiration was kept up for nearly four hours, but the heart's action could not be restored, and the case was given up.

The autopsy gave only negative results.

An expert test, the next day showed that there were 125 volts passing over the circuit, which was probably something near what the young man received, as the conditions were very favorable, the ground being wet, and the man's clothing saturated with perspiration, as the weather was very hot.

In looking over the literature on the subject of electricity, we find that the amount of voltage required to produce death, has a very wide range of variation. One death is reported from a voltage of only 96, and four other persons, in the same mill in the same day, were killed by a voltage of 115, while a voltage of several thousand may not prove fatal. In one case, a boy of

nine years of age, received 10,000 volts without producing death. It seems that alternating currents of low frequency or periodicity, kill with much less voltage than do high frequency currents. Artificial respiration is the only treatment known at the present time, which is usually of no avail, as death usually results from paralysis of the heart.

THE OTHER SIDE OF THE QUESTION

At the recent session of the Medical Society of the state of North Carolina, Dr. J. Howell Way, the retiring president, presented a series of resolutions regarding the enforcement of the state law regulating the sale of liquors except on physician's prescriptions, and stating that, in view of the confidence shown by the public in the medical profession, in placing in the hands of the physicians the right to prescribe liquor at their discretion, the Medical Society of the State of North Carolina condemns as unprofessional and grossly immoral any lax or unfaithful conduct on the part of its members in this particular; that all physicians are urged to aid the enforcement of the law and in building up a public sentiment that will insure protection against illegal traffic in intoxicating liquors, and that the Board of Medical Examiners of the state be urged to revoke the license of any physician proven guilty of prescribing intoxicants unnecessarily. The resolution were unanimously adopted and were ordered printed in the newspapers of the state. J. A. M. A.

As the liquor laws of North Carolina and those of Oklahoma seem to be very much alike, it will be interesting to the Medical Profession of Oklahoma, to know how the physicians of our sister state view the question, and it seems that the profession of North Carolina have taken a more optimistic view than the average Oklahoma physician took, which again proves that there are always two sides to every public question.

WELL, WHAT DO YOU THINK OF THAT ???

Oklahoma City, Okla., June 8, '08.

Dear Friend:—We have arranged to teach a summer normal course in the science of Chiropractic and we believe this to be the best time for teachers desiring to improve their summer vacation.

Our plans are to begin the term the 15th inst. and to continue six weeks, during which time we will teach you all the principles of the science of Chiropractic; about the spinal column the nervous system and how to discover the seat of the continuation of disease and to adjust the cause and to relieve 90 per cent of all human ailments.

We will want to give you a more extended knowledge of the symptoms or language of disease and of its cause and removal, at some future time next fall or next summer, as may suit you.

We hope you have read the sample copy of the American

Chiropractor sent you several days since, and if so you have already some idea of what this science is and what it will accomplish.

You can get some remarkable results if you will spend six weeks with us, studying and completing the summer course we have arranged.

Life is what we get out of it. Getting competent knowledge of Chiropractic is like falling heir to a fortune. Some of our students who graduated a month since have already made as much as \$700 each by organizing a school of Chiropractic for themselves. \$100 a month is a small earning for a Chiropractor and some are making as much as \$10,000 per month, according to ability, while all succeed.

Come learn a profession that will make you independent for life.

Students who may desire to complete next fall will be furnished a location if they desire it where they can get practical experience and make money during their vacation.

Tuition for the summer term will be \$75, payable when you matriculate, and a certificate will be given that will be a credit to you.

Tuition for completing the course will be \$75, also payable when you return to earn your diploma.

Write us for any further information you may wish.

Very truly yours,
Palmer-Gregory Chiropractic College,
A. A. Gregory, President.

And Oklahoma claims to not only be up to date, but in the van of all other states, and yet a new medical law passed by a new legislature in a new state, has no clause in it to prevent the products of this abominable fake institution from going out and practicing on an unsuspecting public.

Surely there is room for improvement in the personale of the Oklahoma Legislature, at least from the standpoint of a physician.

NOTICE

Those having papers to be printed in the Journal, and wishing reprints should make the fact known at once, as plates are not made of the matter, but the type soon melted up.

Reprints will be furnished at actual cost of production, if it is known in time that they are wanted.

WANTED

Assistantship, partnership or salaried position by physician, age 28, single; no bad habits; over six years' experience; best of reference as to character and ability. Address X. Y. Z., care of Journal.

Original Articles

SECTION ON SURGERY

Address by the Chairman, Dr. F. H. Clark, El Reno

In accordance with the time honored custom, and the authority vested in the position which you chose me to fill at the last annual meeting, I am to-day accorded the privilege of addressing you.

I promise you, however, that my remarks shall not be of any great length and I trust, may not be tedious. Another year's campaign has been conducted and now, like the general of the army who at the close of the battle gathers his officers together for a conference, that they may in privacy discuss what had been done, so to-day we meet that we may take a retrospective view of the work of the past year, I grant you this may not always be a pleasant duty, but it is a duty nevertheless.

I cannot refrain from quoting in this connection, the remarks of our honored co-worker Dr. John Wyeth of New York, made to a little group of men as we were seated in the operating amphitheatre of the Polyclinic Hospital of New York recently: He said, "Gentlemen sometimes when you sit down quietly by yourself and think of what you have done for this or that patient, dont your conscience trouble you just a little, as you think of your efforts and realize that after all, possibly you have not done all that you ought to have done? Mine does, and I can't help wanting to get away from my conscience for a little time." These words burned themselves into my memory and they come back to me again and again, for they were the words of an eminent member of our branch of the profession, a man the very soul of honor, and spoken out of the experience that comes from a long and useful career. So let us in our professional labors use a motto chosen by the class, with which it was my pleasure to graduate from a High School almost a quarter of a century ago. "Omnen move Lapidem" "leave no stone unturned," that as we cast retrospective glances over the past our consciences may find less to reprove us for. As the merchant from time to time, and at stated periods takes account of stock that he may determine as to the measure of success or failure that has recompensed his efforts during the period let us do likewise.

The past year's history, I believe, has shown some advancement; true it may be but a small amount, but it has been an advance and not a retreat. Measured by the amount made in a single year it seems small indeed, but measured by the propor

tional part of the advancement made the last half century it is much greater. As an illustration of this, I will relate a little experience told by Dr. Wier of New York, at a recent meeting of the Section on Surgery of the New York Hospital. In the year 1860 a colored man came into their service with an acute painful swelling in the popliteal space, which Dr. Wier thought might be an aneurism; it was referred to the attending surgeon in charge, who pronounced it an acute cellulitis and proceeded to incise it, after doing so inserted his finger to make sure of a sufficient opening, applied a dressing and put the patient in bed. That night Dr. Wier was hurriedly called out of bed to save this patient's life, as he found a terrible hemorrhage had taken place, caused by the breaking down of the walls of the aneurism, on account of the removing of the support of the overlying tissues. The following morning he reported the condition of the patient, and the accident of the night before to his surgeon and spoke again of the aneurism, when the surgeon said approvingly, young man you have made much progress upward, but, he added, the patient went the other way, downward. Such a mistake in diagnosis would scarcely be possible to-day. And so when we measure the progress made by such concrete examples as this, it is not hard to see that we are really progressing.

To me a hopeful sign of the times is the lack of fads among members of our profession. There are, it is true, some few notable exceptions, one of which I witnessed recently; a man whose name is well and favorably known, probably to everyone in my presence, who did a double fixation of the kidneys, with a pair of scissors, a needle and a suture. Not another instrument did he touch. Now of course this is a fad, and one which no doubt many a man will try to imitate, until some day an artery is severed of sufficient size to cost the life of his patient, while he is attempting to ligate it, and thus through the unfortunate imitation of a fadist a human life is sacrificed. But I repeat, that I believe we are less given to fads, generally speaking than ever before, and to me it is a source of great satisfaction.

I believe that what we do need is a better understanding of diagnostic signs and symptoms. In other words, we need to know what to do rather than simply how to do it. A homely illustration of this was given by Dr. DeGarmo while operating on a case of hernia not long since. He told a story suggested by the interne, who was assisting in the operation, saying in all seriousness, when he did not find the rupture on the right side at first where he supposed it to be, that he thought it was really on the left side. The incident told by Dr. DeGarmo was that not long before when operating on a young man for hernia, he had not marked the affected side in any way before administering the anesthetic, and after the patient was etherized and relaxed there was no apparent protusion; but thinking he was on the affected side, he made the usual incision, expecting to find the sac but there was none there; he immediately saw his mistake and proceeded to incise the opposite side, when he found a good sized sac which he removed; he said he explained it to the young man,

by saying that when he came to operate he found conditions somewhat different than he expected and so did the double operation. This of course was true, he had expected to find a sac where he made the first incision, but disappointed in that, and knowing that the patient was really ruptured, it was necessary to operate on the other side.

How much better it would have been, however, had he known positively which side needed the operation. Do not misunderstand me; I do not mean to say that an exploratory operation is not only often indicated, but is positively demanded, and may be a means of prolonging if not of saving life, and of making the patient more comfortable. I believe that we do not do exploratory laparotomies enough. A case in point came into the clinic of Dr. Guiteras at Columbus Hospital recently. A man was brought in who was said to be suffering with an impaction of the bowel, in which case the bowels had not moved in five days, and he had been vomiting almost constantly. The family physician reported, that three days before he had asked for and secured consultation, and that he urged an exploratory operation; as there were many of the ordinary symptoms of impaction or obstruction lacking. The consultant advised against operation, and as the patient was brought to the hospital in a practically moribund condition, he was hurriedly prepared for operation, the abdomen opened, and a constricting band of adhesions found as the result of a former attack from which he had recovered. This caused a kink of the small intestine, and cause a complete obstruction.

The patient died soon after. I believe no one who saw that case would question for a minute the possibility of saving the life of this man, had his consultant taken a stand for immediate exploratory operation, when he was called, as at that time, according to the family physician's statement he was in a safe operable condition.

But let us beware, and not go to the opposite extreme, and because of the apparent lack of danger in the ordinary simple opening of the abdomen, make this an excuse for making the most of our diagnoses post operative, rather than prior to operation. I believe that our crying need to-day as surgeons, is more thorough knowledge of diagnosis. All who know me at all intimately, know that I am a firm believer in nicety of technique; but that I claim is an accomplishment, and not an absolute essential.

Who is willing to listen to the performer on the piano, be one ever so skillful, who violates the ordinary laws of harmony and is constantly producing discords; while one may sit enraptured

for hours, listening to the beautiful melodies which seem to fairly run from the finger tips of the natural musician, whose methods may transgress all the ordinary laws of technique, but whose playing is harmonious. The harmony is an essential, the technique but an accomplishment. Do not misunderstand me in the above statement, I pray you, and go away and say that the essayist said it did not matter how an operation was done, provided the surgeon knew what he was operating for, for I do not believe this in the slightest degree. On the contrary, I believe that he who would attempt to repair such a wonderful piece of mechanism as the human body or machine, if you choose to term it such, should use every means that he can employ to so perfect himself in that delicacy and finesse that he may approach as nearly as possible, to the normal condition which existed before he began his work. You may disagree with me, but that does not alter the fact that there is an esthetic side to our work which must ever be kept in mind, if we wish to please in the greatest measure, those whom we serve.

One other encouraging feature of surgical work to-day, is the lessened mortality. While undoubtedly this is due to several reasons, prominent among which might be mentioned the fact, that the laity have been gradually brought to see that in the great majority of diseases demanding surgical interference, if we are to be able to promise them much they must submit early; yet I am inclined to agree heartily with the opinion I have heard expressed frequently of late by a number of our prominent surgeons that, in their own practice they have seen their mortality steadily decrease, as their proficiency has increased; and what is true in their practice I believe is true in all.

There is another matter which I believe should be brought before the profession at large, but which is of especial interest to the surgeon, and that is, the mistaken ideas regarding vivisection. No estimate can ever be made of the benefit this has been to the human race, and it would seem as though this would be at once apparent to all who oppose it, if they should only stop to think. If they were permitted to have their way, all progress in the field of surgery would be brought to a standstill; and to stop this valuable means of progress through a mistaken idea of the suffering it causes would be a calamity indeed. No man can be a greater lover of animals than I, and yet, how much rather I would have the surgeon try the needed experiment upon my dog, than upon my child or my wife. I am reminded with reference to this, of an incident occurring some years ago at an

anniversary occasion of the Young Mens Christian Association, the secretray had given a detailed account of the work of the year, by which, he had shown a large amount of money expended to carry on the work, and many were inclined to feel somewhat discouraged because, as the visible result of the years' work but one boy had been saved. Mr. Moody was present, and at the close of the service one of those present, asked him if he did not think all this outlay of expense and labor was a large amount to pay for just one boy? Mr. Moody thought a moment and then quietly replied to the question, "Not if the boy was my boy." What a tremendous difference it makes whose boy it is. Fellow surgeons, can we not bring this question home in a practical way to those who oppose this work, and ask them if they prefer to have the necessary experimental operations performed on their boys, their girls, their wives, or their husband, or on their dogs.

In our branch of the profession, as perhaps no other, we see the swinging of the great pendulum to and fro. Not long since, in the choice of suture material no one thought of using an absorbable suture in the intestine, now scarcely any one thinks of using anything else.

A short time ago most of our leading surgeons scorned the use of silk to close the skin in an abdominal section, now many are closing with a running suture of fine silk and heavy needle; and so it goes, the spokes that are down in the wheel to-day will be up tomorrow, and you pay your money and take your choice.

For so many years, we as surgeons especially have considered the East the Mecca from which to draw our inspiration and gather our knowledge, that we have been led to ask like the wise men of old, "Can any good thing come out of the West?" And we are all agreeably surprised at the compliment paid one of our co-workers of the west, Dr. J. F. Binnie of Kansas City, who was recently invited to go to New York to read a paper before the Surgical Section of the Academy of Medicine, on "Reconstructive work on Aneurisms." It was my good fortune to be present at this meeting, and the reception accorded Dr. Binnie was not only cordial, but enthusiastic. This compliment paid the West, while a deserving one in every way was, none the less, one I am sure we all appreciate.

As to the concrete advancement made during the past year, I shall speak but briefly; the literature would lead us to believe that but little effort has been put forth in devising new operations and that the majority of the surgeons have contented themselves by attempting to perfect those already in use.

There is one matter I desire to bring before you and ask you to carefully consider; that is the matter of paying commissions. I am aware that this is not a popular subject, and I hesitate on that account to mention it, but I felt I could not leave it entirely untouched and do what I feel to be my duty.

I trust I shall not be misunderstood when I say that nothing, in my opinion, has done so much to commercialize this department of the great field of medicine as the paying of commissions. We have condemned in the severest terms the fakir for what, in the eyes of many of our thoughtful men, is not one whit worse than this plan I have mentioned, and if carried to the extreme it cannot fail to bring ruin in its wake; I believe the family physician is, in the majority of instances, underpaid for the service he renders, but I do not see why, because of that, deception should be employed and the patient led to believe that all he has paid has gone to the surgeon.

Personally, I would far rather make a price which would permit the family physician to render his bill for whatever portion would be paid him, but let it be rendered directly to the patient, and not through the surgeon as a go between. Besides this, no one who gives this matter any considerable thought can fail to see that it makes the influence of the family physician simply a matter of barter, to be sold to the highest bidder and, instead of being, as of right he should be, above mercenary influence, he becomes, in the eyes of the surgeon, purely a commercial trader, if this plan be carried to the extreme. The solution of this question must, of necessity, be some plan which shall not work any hardship on either the family physician or the surgeon, and each must be prepared to assist in its solution.

Finally, may we remember the mistakes of the past, that we may profit thereby, and reaching out to the things that are before, with a confident hope of success, press toward the mark of the prize of the high calling wherewith we are called, ever remembering the words of the poet:

We have not wings, we can not soar,
But we have feet to scale and climb
By slow degrees, but more and more
The cloudy summits of our time.

The heights by great men reached and kept,
Were not attained by sudden flight.
But they, while their companions slept,
Were toiling upward in the night.

SURGICAL AFFECTIONS OF THE GALL BLADDER

LeRoy Long, M. D.

Preliminary to a few remarks concerning some of the affections of the gall bladder, a brief reference to anatomy of this region, especially the blood, lymph and nerve supply, may be of interest.

The serous covering of the gall bladder is, as you know, incomplete, covering a little less than one half of the organ, and this on the inferior surface. The superior surface is in contact with the liver, to which it is usually attached by connective tissue throughout a part of its extent.

The intermediate layer is of fibrous and muscular tissue, but more fibrous than muscular. It has, therefore, as has been pointed out by Murphy, but little inherent contractility, it being able, under stimulation, to expel only about thirty minims of its contents. It is, therefore, always practically full except when under pressure. When it is remembered that the quantity of bile secreted (or, rather, excreted, for surgeons now look upon the bile as an excretion) is greatly in excess of the capacity of the gall bladder, the bladder being from one to two and one-half ounces, while the former has been estimated to be some forty ounces (Murchison) per diem, it will be seen that this non-contractility of the viscus has a very important bearing on the etiology of the diseases common to this region, as well as shedding light upon the underlying pathological processes. Thus it has been clearly shown that there is a vast difference between the character of the bile in the gall bladder and that in the ducts as it comes from the liver and goes into the intestine. That in the gall bladder is mixed with mucous—in fact, is mostly mucous, on account of the same bile remaining in the organ without admixture with fresh bile. This condition, it is believed, predisposes to inflammatory changes of the mucosa, and as a result there is increased exfoliation of its epithelium, the latter forming masses or clumps, and in many cases these aggregations of cast off epithelium forming the nucleus around which the inorganic salts, chiefly cholesterin, deposit and ultimately form the calculus.

It is of practical value, in this connection, to refer to the fact as pointed out by Naunyn, that cholesterin does not come from the bile, nor does it depend upon metabolism and food, but that it originates from the mucosa of the gall bladder itself, and the more diseased the mucosa, and the more it is irritated, the more cholesterin is produced and thus it follows that the more likely is the formation of calculus to take place.

The gall bladder receives its blood supply through the cystic branch of the hepatic artery, the latter being one of the three divisions of the coeliac axis. Its efferent vessel is the cystic vein, which empties into the portal vein, and consequently, septic thrombi of this vein, if liberated, would be arrested in the liver.

The lymphatics accompany the hepatic vein and communicate with the thoracic lymphatics. It has been pointed out that

when the bile ducts are obstructed these lymphatics carry bile from the liver to the blood channels.

The nerve supply is important in that a proper understanding of it will enable us to better appreciate some of the symptoms present in disease of the gall bladder. Innervation is through the cystic division of the hepatic plexus of the sympathetic. This latter is one of the divisions of the coeliac plexus, which is in turn a continuation of the solar plexus. The coeliac plexus has three divisions—the gastric, hepatic and splenic, and it is the cystic branch of the hepatic plexus that supplies the gall bladder. The nerve supply is, therefore, in close relation with the nerve supply of the stomach, duodenum and liver, hence the epigastric pain and pain in right hypochondrium. Your attention is called to the further fact that the nerve supply is in relation with the dorsal nerves from the sixth to eleventh through the great and lesser splanchnic nerves—hence the pain below the shoulder blade.

Briefly, I wish to call your attention to acute empyema, or gangrene of the gall bladder. This occurs when there is a virulent infection of the gall bladder. The mucosa swells, the cystic duct is obstructed by either the swollen mucosa or calculus, and there is the formation of pus under pressure. With this condition of things, there is rapid destruction of the gall bladder—cases being reported in which there was gangrene seventy-two hours after the onset of the attack. This is, not a common disease, but attention is called to it for the reason that it is practically uniformly fatal without prompt surgical intervention.

The condition may be recognized by the presence, simultaneously, of the signs of profound sepsis, that is, rigors, dry, coated tongue, mild delirium, great thirst, nausea, vomiting, hic-cough, and marked sensitiveness and induration beneath the right costal arch.

Operative treatment is imperative and consists in carefully making an incision over the affected organ, incising it for one and one-half to two inches, gently sponging away the pus, and the introduction of a large glass drain, or aspirate the gall bladder after cutting down upon it until tension is relieved. No attempt should be made to remove stones or in any other way manipulate the diseased organ; the essential object of the operation being to relieve tension, give free exit to pus and debris, all other proceedings being deferred until acute symptoms have completely subsided.

I have never operated in this condition, but as I look back, the conviction forces itself upon me that I have seen a patient die on account of the mistaken decision to pursue a conservative course.

With reference to the commoner surgical affections of the gall bladder, I wish to call attention to the symptoms of pain, colic, and jaundice, and make the observation that we should not expect them to be present in a classical way, in every case that should be operated. As a matter of clinical observation, the last named symptom, jaundice, in the great majority of cases, is not

present at all. This may be readily understood when we refer to the anatomy. The greater quantity of bile, as has been already pointed out, passes directly from the liver to the duodenum through the common duct. It is only when there is obstruction of this duct that jaundice is present. The gall bladder may be diseased for an indefinite length of time, and the cystic duct may be obstructed without jaundice, for this in no way interferes with the flow of the bile from liver to intestine. I wish to repeat this, for I do not believe it is understood generally as it should be—that in the overwhelming majority of cases of gall bladder disease demanding a surgical operation there is no jaundice at all. Jaundice, if at all marked and persistent, in connection with other symptoms, always means an obstruction of the common duct, and accentuates the necessity for surgical intervention. Pain and colic may be present in a marked degree, and when present, like jaundice, are usually rightly interpreted as making the necessity for an operation more urgent. However, the necessity for an operation exists in many cases—in the majority of cases—in which pain and colic are not markedly and classically present. In the absence of icterus, or the previous passage of stone, Murphy gives, as indications for operating:

First. Reflex periodic digestive disturbance accompanied by tenderness beneath the right costal arch.

Second. Repeated attacks of mild pain or gastralgia, with tenderness under the right costal arch and an elevation of temperature, ranging from one to two degrees.

Third. Recurrent attacks of colic in right hypochondrium over the gall bladder during the attack of pain, with or without elevation of temperature.

Fourth. Tumor in the region of the gall bladder, with reflex disturbance, or local tenderness.

Subacute inflammation of the gall bladder, with obstruction of the cystic duct is preferably operated after the subsidence of the attack, this course being less difficult for the surgeon and safer for the patient.

Case One. Mrs. W. a white woman, thirty-six years of age was brought to hospital by Dr. Willour, who assisted me in the operation. An attack of subacute inflammation of the gall bladder with obstruction of cystic duct was just beginning to subside. I did a cholecystotomy thirty-six hours later and before the entire subsidence of symptoms. There was a history of recurrent attacks, accompanied by fever for several years. The gall bladder was found so smoothly adherent to the liver that a line of demarkation could not be identified with the exception of a very slight difference in color. Detecting a point of fluctuation, an opening was made in what proved to be the gall bladder. A half dozen large calculi, many small ones and much debris was removed. The tissues, on account of the recent attack were very friable, and had to be handled very gently. On account of its close contact with the liver, it was difficult to draw the bladder into the abdominal wound. Having in mind the risk of operating under such circumstances, great care was taken to protect the

contiguous peritoneal cavity. While the patient at no time did badly, her progress for the first two or three days was not altogether uneventful; the most marked divergence from the normal being rapid pulse. However, no medicine at all was given, and after seventy-two hours the rapidity decreased, and the patient had no further trouble. In this case there was no jaundice, nor had there ever been.

Case Two. Mrs. T. brought to me by Dr. Winborn, was a case with the most pronounced jaundice. The history covered seventeen years. I reported this case in a paper read before this association at Oklahoma City two years ago. I report it again in this connection to call attention to a most welcome, happy and unlooked for outcome. At the operation it was found that the gall bladder was entirely obliterated in a mass of adhesions. After a long and tedious dissection, the remnant of it was found. The common duct was included in adhesions and could not be identified, but a careful examination failed to bring a stone to light in any location. The cystic duct was patent. After the remnant of the gall bladder had been ligated and amputated, the cystic duct was incised and a drainage tube stitched in it with cat gut, the opening in the duct being closed snugly around the tube and further protected by a couple of strands of gauze. At the time of operation there was nothing but a little mucous in the duct, the bile began to flow through the drainage tube after a number of hours, the disagreeable symptoms abated, the jaundice disappeared, and the patient rapidly improved. I expected her to have, however, a permanent biliary fistula, because I believed that the common duct was so involved in the adhesions, as to have its function destroyed. This was the condition when I reported the case, a short time after the operation, two years ago. A short time thereafter there was evidence of bile in the fecal discharges; less and less came through the fistulous opening, which finally closed, and the patient has been ever since in the best of health.

I believe that the outcome in this case proves my conclusion at the time of operation, that there was not a stone in the duct, the obstruction being due, not to stone, nor, as I thought at the time, to the adhesions alone, but probably to a persistent cholangitis with thickening of the mucous lining, which was relieved when the flow of bile was diverted for a time.

Case Three. Mrs. N. was referred by Dr. J. S. Fulton, who assisted me in the operation. The patient was a white woman, forty-six years of age, and there was a history covering eleven years. Jaundice was present to an extreme degree, and the patient an invalid. Dr. Fulton had made a diagnosis of obstruction of common duct, probably by stone, with the possibility of cancer as a complication—the last on account of the rapid decline of patient for a few months previous, and I readily concurred with him. At the operation there was not the least remnant of the gall bladder to be found, nor could common or cystic duct be made out. A mass of adhesions involved pylorus, duodenum, gall bladder region under surface of liver. The pancreas

was felt as a very hard, resisting body. A diagnosis of cancer was made, and the abdomen closed. Her family was advised of her condition. The patient did well and in two weeks was out of the hospital, declaring she felt better than she had for years.

At the time, we thought her improvement could be nothing more than a passing psychical impression, but, as strange as it may seem, she has steadily improved, her jaundice has disappeared, she eats heartily, walks erect, goes anywhere she wishes to go, and has gained some twenty pounds in weight.

I am at loss how to account for this remarkable transition in her condition, unless that in breaking up a number of adhesions in trying to outline the structures of the bile tract area, I released the common duct so that its lumen would again permit the flow of bile through it. The operation was more than six months ago, and the patient's improvement continues.

DISCUSSION.

Dr. Arthur W. White, Oklahoma City: It is a most interesting paper and an instructive one. The main idea being that there are many affections of the gall bladder that can be relieved by surgery where gall stones are not present. It is believed that 75 per cent of gall bladder cases, when operated upon, reveal no stone. The symptoms of gall stones are not really symptoms of the presence of gall stones, but rather symptoms of gall bladder trouble or of the ducts in connection with the gall bladder, and may be due to various causes. I believe that affections of the common duct are responsible for a great deal of our liver and intestinal trouble.

Dr. Berry, Wetumka: The paper is very interesting to me, because it is in line with a case I had about eight weeks ago. I was called by Dr. Mitchell to operate for appendicitis. I had Dr. Mitchell call Dr. Warterfield. We agreed that it was appendicitis, and upon opening the abdomen, we found pus coming from the region of the gall bladder. We put in drainage and about a week after, on one of my visits, I found a large gall stone which popped up into place, and found one smaller one. Since that time the man has made a tedious but progressive recovery. He is gradually regaining strength. The gall bladder has closed, but he is still discharging a very little pus. There is still a little fever. Some of our great operators never operate for appendicitis without examining the gall bladder. It is our duty, I think, to find out the condition of the gall bladder.

Dr. U. L. Russell, Oklahoma City: It seems the sensible thing to establish drainage. The question of diseases of the bile passages is something we are gradually sifting out.

The question of what causes gall stones? A great many men pretend that it is necessary to have an affection of the gall bladder and accompanied by more or less obstruction of the cystic duct. This was partly proven by experimentation on the cystic duct of rabbits and getting gall stones in three weeks. It takes a little more time to develop the stone in a human than in a rabbit.

Regarding diagnosis of gall stones and of other diseases of the bile passages: The Doctor showed that jaundice is not an essential feature, but that there were always intestinal disturbances. There is pyloric ob-

struction. The question of adhesions about the gall bladder: I believe there are many cases of infection of the gall bladder and colon in which the adhesions are not absorbed.

I believe that there are a great many cases of diseases of the bile passages that are not relieved by operation because there is a stone which is not discovered. Mayo always opens up the common duct. I believe, in all cases of common duct trouble, we should explore with our fingers, for the duct is always dilated above the stone, so we can make exploration if we desire.

Dr. Long, closing: I appreciate the courteous reception that has been given my paper, but since there is no diversity of opinion in regard to it, I will not take up the time of the Society further.

This very interesting piece of dialogue was sent in by Dr. Fisk of Kingfisher:

An Indian came into Dr. Shares' office and the following conversation followed:

Indian. "Want medicine for fever."

Doctor. "Who for?"

Indian. "Little boy."

Doctor. "How old?"

Indian. "Seven year."

Doctor. "Do his bowels move?"

Indian. "No, bowels never move."

Doctor. "Well, they must move.

When did they move last?"

Indian. "Bowels never move."

Doctor. "Well, they must move."

Indian. "Oh hell, I want medicine for fever." With this farewell salutation Mr. Indian rushed out. John believes in specific medication.

BOOK REVIEWS

MEDICAL GYNECOLOGY.

Medical Gynecology. By S. Wyllis Bandler, M. D., Adjunct Professor of Diseases of Women, New York Post-Graduate Medical School and Hospital. Octavo of 675 pages, with 135 original illustrations. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, \$5.00 net; Half Morocco, \$6.50 net.

W. B. SAUNDERS COMPANY

Philadelphia

London

It is really gratifying, in this age of "Mania Surgery" and Therapeutic Nihilism, to know that there are yet enough believers in medicine and medical treatment to justify the publication of a work like this, for in no field of our profession is the value of conservative treatment more manifested than in that of Gynecology.

The various subjects are treated in a concise, yet comprehensive manner; and operative measures are treated as a last resort; the illustrations are good and should be of much benefit in the perusal of the text. We believe that, if the principles laid down in such works were more faithfully carried out that there would be fewer unsexed women in the world, the health of many of whom, were but little if any benefitted by the various operations they have been subjected to.

*THE PURPOSES AND ATTAINMENTS OF CYSTOSCOPY;
AND DEMONSTRATION OF THE AUTHOR'S
UNIVERSAL CYSTOSCOPE.*

By Bransford Lewis, M. D., St. Louis, Missouri.

The cystoscope has cleared the field of genito urinary diagnosis in many material respects; it has dissipated the cloud of doubt that hung around the origin, in the urinary tract, of pain, of pus, blood, tubercle bacilli and other organisms and microbic infections; has made clear the reason for abnormal frequency of urination, of difficulty or of impossibility of urination; it has proved an ally of inestimable value in the detection and location of calculi at various parts of the urinary tract, of tumors, their size, nature and accompanying characteristics. In fact, the cystoscope has accomplished so much, since it was rendered practical by Nitze in 1876, that it is difficult to approximately estimate its services. Take the objects and uses of ureter catheterization, alone, as used in connection with cystoscopy, and we have a list that is surprising. Quoting from a previous paper (*) on this subject, outlining these, we have the following: "The purposes are twofold, for diagnosis and for treatment.

DIAGNOSIS—A. To locate the origin of pus, blood, tubercular products or bacilli, the various pyogenic infections, abnormally desquamated epithelium, etc., as to whether they come from (1) the bladder, (2) the right ureter, (3) the left ureter, (4) the right kidney, (5) the left kidney, (6) the right or (7) the left perirenal space, communicating with the corresponding kidney or ureter.

B. To recognize and locate obstructive conditions in the right or left ureter from (1) stricture, (2) stone, (3) adjacent tumors, (4) bend or kink in the ureter from movable or dislocated kidney, (5) valvular junction of ureter and its pelvis.

C. To determine (1) the presence of two kidneys, (2) if only one, which is absent.

D. To determine the number of ureters present.

E. To determine the functional activity of each kidney separately and relatively, with respect to its excretion of urea, albumin, quantity of urine, the specific gravity, etc.

F. To determine the size and capacity of each kidney pelvis with respect to (1) hydronephrosis, (2) pyonephrosis, (3) total obliteration of kidney-secreting tissue.

G. If there be kidney disease present, to determine (1) if only one kidney is affected or both; (2) if only one, which is the affected one; (3) if both, which is the one more affected; (4) if removal of the worse one be advisable, is the other one able to carry on kidney function sufficiently? (5) if removal of one be advisable, and the other is capable of supporting life, will the operation remove the infection from the body, removing the pos-

*Read before Oklahoma State Medical Association, May 12, 1908.

(*) "Ureter-Catheterism: Its purposes and practicability," Bransford Lewis; *Annals of Surgery*, January, 1903.

sibility of dissemination or recontamination?

TREATMENT—A. To enlarge narrowings or strictures at (1) the ureter openings or (2) in the channel of the ureters. By facilitating drainage through the increased ureter-caliber, thus obtained, to assist in the improvement of pyelitis, or pyonephrosis, unilateral or bilateral.

B. To irrigate and medicate (1) the ureters; (2) the kidney pelves of one or both sides.

C. To assist, by anesthetizing and enlarging the ureter opening, the passage through it of a calculus or a plug of pus, blood, etc.

D. To use the ureter, after it is catheterized, as a guide in certain abdominal and pelvic operations.

E. By prolonged catheterization of a ureter to assist in the cure of ureteral fistula.

Since its introduction in a practical form, some thirty years ago, the cystoscope has undergone many changes, the most of which may be conceded to have been improvements. This is evident when we remember that the older instruments were heavy and cumbersome, of large caliber, carried lenses of poor construction, giving it a small and darkened field of view; and lamps of low illuminating power, but so hot that their contact with the exposed mucuous membrane meant a scorch and possibly a resulting ulcer of months' duration. Insecurity of insulation and electric conductivity often added embarrassments to the operator; so that the lot of the cystoscopist has not always been a happy one.

The sphere of usefulness of these instruments was restricted in other respects—and this objection pertains to most of the instruments of the present day, as well. That is, they fulfill only one or two purposes; for instance, the Casper, Albarran, and certain of the Nitze instruments of today furnish a right-angle view from the concavity of the instrument (as shown in figure 1*), from which aspect alone ureter-catheterization must be performed. This is by what is termed the *indirect* method of catheterization. The Brenner cystoscope furnishes a view and the means of catheterization from the convexity only, as indicated in figure 2, enabling the operator to look straight ahead of him, or catheterize straight ahead of him, by the *direct* method only. Other Nitze instruments of special patterns, and one devised by Schlagintweit, give a restrospective view for the especial purpose of looking at the prostate or neck of the bladder; but they do not combine with these a means of catheterizing the ureter, and do not give the direct forward view; so that, so far as they are concerned, the patient might have a carcinoma of the bladder, situated on the posterior wall, out of reach of the view they afford, and they would not disclose it.

Their restricted usefulness gives rise to similar objections to the several models of air-cystoscopes on the market, my own ureter-cystoscope, presented in 1900, among them. They are practically serviceable for only one purpose, that of ureter cathe-

*The doctor exhibited some photographs and radiographs during the reading of his paper but no cuts were furnished.—(Ed.)

terization, proving of limited value in the many and important purposes required for comprehensive cystoscopy.

These several conditions reduce one to the necessity of providing himself with a number of different instruments, if he is ambitious to cover the field of cystoscopy by the instruments that have been on the market.

In 1906, before the Chicago Urological Society, and later in the same year, at the meeting of the American Urological Association in Boston, the author presented the first working model of the cystoscope here shown; and use of it, since then, has served to confirm and establish the instrument in the several points of material advantage claimed for it at that time.

It is named the Universal Cystoscope because it fulfills the following purposes: (1) Direct, forward view; (2) right angle view; (3) retrospective view; (4) ureter catheterization by the direct method; (5) maturing completion ureter catheterization by the indirect method; and (6) means for sure irrigation and change of fluid. It carries a cold lamp which cannot possibly burn anything, well protected in a metal and glass-lined chamber. Its lenses are of modern design, hemispherical for the angular views, which eliminate prisms and reduce the number of lenses required, thus increasing the amount of light supplied.

The sheath, through which the several telescopes are passed, similar to the plan originated by Boisseau du Rocher in 1889, embodies these advantageous properties: Its large caliber and straight channel furnish effective means for irrigating the bladder and securing prompt change of fluid, even during the work or observation of the operator. On this account continuous hemorrhage into the bladder does not present the formidable difficulties accepted as incident to the non-irrigating cystoscopes, which are promptly put out of commission under such circumstances. Because of this faculty, possessed by this instrument, we have, in several instances, made entirely successful examinations that would have been impossible with a non-irrigating instrument.

The same sheath furnishes a means for the easy exchange of one telescope for another, from the direct to the right-angle or retrospective telescope, etc., and without the necessity of removing it from the bladder or the patient knowing that any exchange is being made.

The screw at the handle supplies a ready means of switching the electric current on and off; it is uncomplicated and reliable.

Water is the medium for distending the bladder; it is more acceptable to the bladder, and the objections to it from incidental hemorrhage having been done away with in the manner already mentioned, water is the medium most satisfactory in the great majority of cases of cystoscopy or ureter catheterization. When it comes to *operating* within the bladder or ureter through the cystoscope, that is a different condition of affairs, and air is found to be more serviceable under such circumstances. This is discussed at greater length elsewhere (*).

(*) Remarks on the choice between water and air as Distending Media in Cystoscopy, "American Journal of Urology," December, 1906.

Practicability and Utility of Cystoscope.

The simplicity and reliability of the modern cystoscope, the excellence of its lenses, the effectiveness of its provisions against the obstacles of hemorrhage, pain, etc., and its innocuousness, all combine to render cystoscopy as now carried out a *practical procedure*. That is confirmed by the many times it is used in the daily investigation of urinary cases. The utility of the procedure is likewise well established. Those who work in this field know that there are many cases of urinary trouble whose diagnosis cannot be solved without this instrument, that are readily and completely solved with its aid. This fact incidentally proves the NECESSITY of the use of the cystoscope, if one is to pursue this kind of work conscientiously and scientifically. How else could be developed the diagnosis and successful treatment, for instance, of the case of three ureters, shown in the accompanying radiograph, in which one of the three ureters was infected with gonococci and had been proving the source of recurrent gonorrheal infection of the lower urinary tract for over five years, but was permanently disinfected by direct irrigation of the involved ureter through the ureteral catheter? The case was reported in extenso in the Medical Record, October 6, 1906. (*)

*The Duty of Physicians and Surgeons in Relation to the
Cystoscopes.*

The relation of the cystoscope to physicians and surgeons is not clearly defined. It is an instrument requiring some especial study and practice before it can prove efficient and reliable; but does that justify the practitioner in denying its benefits to his patient in need of its service, because he has not yet secured the instrument or attained the required skill? In receiving such patients and giving them his counsel, is there not an implied responsibility of giving them the benefit of all the means available, scientific and otherwise, for his relief, and without reference to whether, that particular practitioner is versed in the workings of the apparatus required? How many of us know how to use the complicated X-Ray apparatus, or go to the expense of time and money necessary to procure and master it? And yet how numerous are the patients receiving its great diagnostic capabilities, not to mention its therapeutic possibilities? Failure to possess instrumental equipment cannot justify the practitioner in withholding any curative means from his trusting patient. Nor can it justify him in substituting for such effi-

(*) "Three Ureters Demonstrated During Life; Ureter-catheterization giving three different Urines, one infected with Gonococci." Bransford Lewis

cient means of *relief*, an opiate that obtunds his suffering but postpones the time of definite diagnosis and reduces, from week to week and month to month, the possibility of supplying the proper measures for reclamation to health. The cancer of the bladder that is fed on urinary soothing syrups, such as corn-silk preparations, etc., for months or years, instead of being early detected and removed, inevitably furnishes the saddening thought, the oft-repeated regret, "If only It had been recognized and operated upon early!" The misnamed "surgical kidney" (that comes from *lack* of surgery) stands another monument, multitudinous in frequency, to procrastination and urinary soothing syrups. It is undeniable that the practitioner, no matter what his bent of practice, his "school" or his alliances, has a definite duty in this matter that cannot be gainsaid.

It is probable that a misconception of his exact duty furnishes the reason, in many instances, for the unfortunate outcome of such cases. The patient who suffers, for instance, from hematuria, goes to the doctor *for the relief of the hematuria*—not the definite diagnosis of its cause; his physician partakes of the same view, prescribes measures for the suppression of the hemorrhage which, if successful, *may prove to be the most unfortunate result possible for the patient!* The hemorrhage may be the earliest warning of a developing malignant growth—the very acme of conservatism on the part of nature—and its suppression without investigation but lulls the doctor and his patient into a false security that proves disastrous in the end. His success is an anti-climax. At the present time I have four cases of carcinoma of the bladder under observation that reached the condition of inoperability long before any kind of definite endeavor was made for either diagnosis or treatment—the inevitable corn-silk urinary cure-alls have been depended on to perform that double duty for from three to five years, in each instance. Can we possibly face the issue of these facts and yet evade the responsibilities we assume in the premises?

There is no doubt that in many cases the patient will not adopt the urgent advice of the physician to have the diagnosis of his case cleared up, excusing himself on the ground of lack of time, or the expenditure required, etc.; but at the time it is probable that he would not hold to such a position if the seriousness and possibilities of such a course were candidly and forcibly explained to him. I was much impressed by a discussion along similar lines, with respect to cancer of the breast, by members of the Medical Association of the Southwest, last fall.

It was brought out that the candor and forcefulness and mode of presenting the facts to such patients had much to do with their adopting or rejecting the advice urged on them by medical councillors. If the physician talks with the force and courage of his convictions, his argument will seldom be withstood.

Technique of Cystoscopy and Ureter-Catheterization.

In brief, the mode of using the universal cystoscope is as follows: The usual preliminaries of cleansing the bladder and placing the patient in the lithotomy position on the table are followed by deadening the sensitiveness of the post-urethra and bladder by means of local or general anesthesia; local anesthesia suffices in the great majority of cases. It is best secured by means of the urethral tablet depositor, devised by me some years since. This permits the *confined* application of either cocaine or, preferably, alypin tablets, in the posterior urethra and neck of the bladder, the most sensitive areas. When the patient tells us that tenderness is reduced, the light having been adjusted and turned off, the cystoscope sheath with obturator in place is introduced into the bladder. Withdrawal of the obturator is followed by further irrigation through the sheath and the injection of from six to ten ounces of clear water, for distending the bladder. The direct, the right-angle and the retrospective telescopes are successively introduced for comprehensive inspection of the whole bladder interior, including any prostatic projections or foreign bodies. If ureter catheterization is desired, it should not be postponed until the anesthesia disappears, but should be proceeded with promptly. The catheterizing telescope, armed with two catheters, is run into the sheath; the ureter openings are successively located at the corners of the trigone and are threaded with the two catheters for six or eight inches. The light is turned off, most of the distending fluid is allowed to escape through one of the cocks, and the cystoscope is withdrawn from the bladder, while the catheters are permitted to drain the ureters for a half hour or more.

If these maneuvers are promptly and skilfully executed, in the large majority of instances the patient is actually surprised at the little amount of pain he has experienced. Of course, there are some patients who are so exceedingly sensitive that they cannot stand the introduction of even a soft rubber catheter without much suffering, apparently; such patients may prove the exception to the rule of little suffering from cystoscopy.

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EXTRA UTERINE PREGNANCY.

A. A. WEST, B. S., M. D.

Surgeon to the Oklahoma Methodist Hospital, Guthrie

HISTORY.—By extra uterine or ectopic pregnancy is meant the development of an impregnated ovum outside of the uterus.

So much discussion has been provoked and such valuable papers been written on the etiology, pathology, and treatment that the historical side has received but little attention. We are prone to think that this anomalous gestation was altogether overlooked by the early writers, but a study of the medical literature of four or five centuries ago has shown that as early as (1669) Riolanus and Robert Vassel recognized the condition as such. Even earlier Nufer (1500) performed celiotomy and Reginer De Graaf, Dirliwaing, and Mariceau wrote and made drawings after their own interpretations. We find many other early writers mentioning this form of fetation but offering no explanation as to its cause or remedy for its alleviation.

Israel Spach as early as (1597) dedicated this curious epigram to a lithopedian drawn, in situ, upon the full length cut of a woman with her belly laid open, which when roughly translated from the Latin means: "Deucalion casts stones behind him and thus fashioned our tender races from the hard marble. How comes it that now-a-days by a reversal of things the tender body of a little babe has limbs near akin to stone." So while many of the early writers recognized and wrote of it, it was not until (1752) that Bohmer was able to differentiate tubal, ovarian and abdominal forms of ectopic gestation.

Mauriceau one of the most noted obstetricians of his time did not believe that impregnation took place in the tubes but in the cornu, or horn and gained entrance to the abdominal cavity as a hernia of the uterus.

However the Italian surgeon, Vassal of Corradi, Italy, operated on and removed the uterus along with the tubes and foetus and displayed them in the different cities, showing that impregnation had taken place in the fallopian tube. He became one of the leading exponents of the theory, and many of the younger obstetricians and surgeons accepted and followed his teachings. Somewhat later, (1741) Bianchi constructed an elaborate classification describing in detail many forms, some purely hypothetical, from which Bohmer simplified to three forms; "Gestatio Ovarica," Gestatio Tubaria," and "Gestatio Abdominalis." For forty-nine years Bohmer's classification remained unchanged. In (1801) Schmidt described the interstitial form and with this addition Bohmer's classification stands unchanged.

FREQUENCY.—Many authors are greatly at variance as regards its frequency, but it is stated to be in the ratio of one to five hundred. Von Winckle claims he has seen only 16 extra-uterine to 16,000 intra uterine pregnancies. Bandl, in Vienna, 3-60,000. But Hirst, of Philadelphia, operated on 13 in 9 months. Formad,

Read before the Alfalfa County Medical Society.

of Philadelphia, in a series of 3500 autopsies, found 35 ectopic gestations.

From a careful investigation of the writings of modern surgeons and gynecologists of to-day, I am convinced it is much more frequent than formerly supposed. Many of the deaths once supposed to be idiopathic peritonitis, and abdominal hemothecoele, were undoubtedly due to ectopic gestation.

CUASATION,—Mechanical obstruction of the tubes in one of its many forms accounts in a most rational manner for most of the cases—impeding the downward progress of the ovum in its passage to the uterus. These causes may be classified as:

- (1) Obstruction within the lumen of the tube.
- (2) Disease of the walls of the fallopian tubes.
- (3) Pressure from without diminishing the lumen of the tube.

Some of the more particular causes made mention of it might be well to note are:

- (1) Tubal Polypi.
- (2) Catarrhal and purulent salpingitis.
- (3) Uterine tumors.
- (4) Foetal type of tube.
- (5) Adhesions constricting the tube.
- (6) Diverticular of the tube.

No further back than the early part of the 18th century, Tait and Wyder maintained that impregnation took place in the uterus, brought about by the antagonistic action of the cilia of the tubes and uterus. This necessarily obscured many features that is made plain to-day by the recent observations of Hofmeier, whose researches have shown that the movement of the uterine cilia coincides with the cilia of the tubes, facilitating the downward passage of the ova, and to interfere more or less with the upward movement of the spermatazoa. So that if the spermatazoa were not endowed with motility, impregnation would perhaps never occur.

That the spermatozoa swarm the ovarian region is shown by Bischoff, who says myriads of them are seen to cover the peritoneum of the ovary, where they lie in wait for the ovum.

Conceding, then, that impregnation takes place in the tube, the theory that ectopic gestation is due to some mechanical obstruction becomes a veritable fact.

DIAGNOSIS,—Often times the diagnosis of extra-uterine pregnancy can be made before rupture. However, in spite of a clear history and a painstaking, thorough physical examination, a diagnosis of extra-uterine pregnancy before rupture is sometimes impossible. I think I may safely say that a large majority of ectopic gestations are not diagnosed in private practice before rupture has taken place, and that many women lose their lives because we fail to recognize so grave and dangerous a disease.

When rupture has occurred, the intense pain, the symptoms of hemorrhage, abdominal distention, pelvic tumor, peritoneal effusion, surgical interference is indicated.

But many of the above symptoms have been closely simulated

by rupture of the ovarian cysts, acute suppurative salpingitis, abortion followed by infection with falsely given histories, and yet these conditions demand the same treatment and an error in differential diagnosis is of no serious consequence.

Perhaps the most common cause of error occurring in general practice, is an incomplete abortion with the formation of a pelvic abscess. Hirst says in 59 of his cases, 20 physicians made this common error. Pyosalpinx with an indistinct and uncertain history of abortion or pregnancy, intra uterine pregnancy with a rapidly growing fibroid to the side of the uterus, are obstacles met with and must be considered in making the diagnosis.

In the confusing array of symptoms, what definite symptoms are present that may lead the general practitioner to make a certain and early diagnosis. This disease like many others is devoid of pathognomonic symptoms, so easy that we can not stray, but a few symptoms, always met with and carefully studied, will, I think, enable the careful clinician to make a positive diagnosis, and secure the services best needed for his patient. For sake of convenience I will divide them before and after rupture of the sac.

Diagnostic symptoms before rupture:

- (1) Cessation of menstruation for one or more months.
- (2) Other signs of pregnancy, such as morning sickness, changes in color of the vaginal mucus membrane, breasts, etc.
- (3) The presence of a tumor to one side of the uterus, slightly painful on pressure, with uterus well to one side.
- (4) Irregular pains in pelvis—often severe on exertion, and assuming severe cramp-like pains in one or the other iliac regions.

(5) The finding of cast off decidua.

(6) A history of previous sterility

Diagnostic symptoms after rupture:

(1) Pain is the most distinctive feature—not the regular, increasing pains of abortion and labor, but an intense, tearing pain—a pain so severe as to occasion profound systemic disturbance, nausea and vomiting, cold sweats, hysterical outbreaks, with complete disability and collapse.

(2) On bi-manual examination the uterus will be found enlarged, not always in conformity with the length of pregnancy. A soft fluctuating mass, tender on pressure will be distinctly felt on the side of the uterus, perhaps low down in the Cul de sac of Douglass.

(3) The uterus will be found to the side of the pelvis and pushed backward and downward.

(4) Symptoms of shock, if hemorrhage is severe, otherwise it may be unnoticed without careful consideration. There are often signs of anemia.

(5) Distension of the abdomen, from peritoneal effusion and hemorrhage.

(6) Finding of cast off decidua.

(7) Collapse—or patient may recover depending on the severity of the conditions present.

Possible Termination of Extra-uterine Pregnancies

(1) The gestation may go to term and be delivered by artificial means. We have many well authenticated cases of this kind, but the children born under such stress of circumstances, usually do not live or else are deformed. Many die in the first hours of life. One of these cases came under my personal observation at Guthrie. This case was operated by Drs. Blesh and Reed. The child was full termed and I believe is living to-day.

(2) The gestation may go to term but the child not being delivered, dies, and remains to undergo one of the following changes. It may:

(A) Undergo putrefactive changes, and become a source of infection and seriously complicate the mother's life.

(B) It may undergo fatty degeneration and finally become what is known as an Adipocere.

(C) Calcification may take place and it may become a lithopedian in one of its various forms.

(3) Of all the termination the most favorable is the death of the young embryo with the absorption of the foetus, membranes and liquor amnii.

It is so very exceptional that it should never be relied upon as a possible termination. That this is made possible it must take place early, not later than the second month of fetation. Even in this, the mother may remain an invalid from the pathological conditions remaining in the pelvis, such as adhesions and chronic salpingitis.

(4) Rupture of the sac with profuse hemorrhage is the most common termination. The seriousness as regards to immediate death depends upon the location of the gestation sac and whether the rupture is into the broad ligement or into the abdominal cavity. If within the broad ligement the resultant pelvic abscess usually following, if releived, post vaginal, and drained gives far greater chance of a good ultimate recovering than if it ruptures into the abdominal cavity, or both, when prompt surgical interference offers the only solution of saving the mother's life.

(5) The more rare terminations, such as tubal moles, continued growth of the placenta after death of foetus, and the formation of so called foetal cysts, I will not take up you time to discuss.

TREATMENT,—I assert without fear of successful contradiction that the treatment of ectopic gestation is as surely a surgical disease as we all consider appendicitis to be. True a few cases will recover spontaneously but as much may be said of appendicitis. We must consider that treatment the most conservative which saves the most human lives. We cannot consider the viability of a child except in-so-much as it offers a hindrance to

the safety of the mother's life. We must treat it as we would a parasite, a malignant growth.

In determining to operate we must consider: (1) Can the patient live if left to nature's tender care. (2) Will the dangers of an operation prove less than the far reaching results of a rupture of the gestation sac. The inevitable death of the foetus is assured in either case, the life of the mother is then our only care.

Having the statistics of the last two decades at hand and in the light of modern aseptic surgery, if the patient is in the hands of a skilled surgeon I unhesitatingly advise operation.

Veit says "Operate in all cases of extra-uterine pregnancy whatever may be the age of the foetus."

Having decided to operate we must not loose sight of the three most important dangers, sepsis, hemorrhage and shock. The first can be avoided, the second controlled and the third overcome.

The choice of methods whether by the vaginal or abdominal route is largely a matter of individual preference. The author prefers the abdominal route, and in only one case, that recently operated on at the Guthrie Methodist Hospital, have had to make use of both.

The advantages of the abdominal route are so manifold that I will not take the time to enumerate them. Neither will I, in the short time allotted me in this paper, attempt to describe in detail the minutia of the different operations and will here only give a general synopsis of our own method of operating.

OPERATION—Once the diagnosis is made and operation decided upon, if not an emergency, the usual routine of giving the patient two ounces of Oleum Ricini at eight o'clock p. m., followed in the morning at six o'clock by an enema will usually secure an empty alimentary track. Patient is then shaved over the abdomen and vulva and a one per cent compress of Lysol applied with binder. This we have applied at 5 a. m. At the time of operation patient is placed upon the table with the pelvis elevated. If symptoms of hemorrhage, we make use of the Trendelenburg position. An incision is made in the median line, the hand inserted and passed to the fundus of the uterus. This is grasped by a Vulsellum and brought into view. If active hemorrhage is discovered the bleeding points are secured and ligated. The sac with its contents are then dissected out as we would in an ordinary oophro-salpingectomy. The abdomen closed without drainage.

If an emergency operation, with severe hemorrhage, no omission of every aseptic precaution is allowed. Patient in Trendelenburg position, the abdomen open, the hand inserted in the belly, feels the fundus for a guide. It is passed to the uterine artery and a clamp applied. The same is done with the ovarian artery and immediately we order a transfusion under both mammary glands of a litre of normal saline solution. The blood is dipped out of the abdominal cavity and with a Cleveland ligature carrier, a ligature is passed around the uterine and ovarian arteries and tied. The sac with its contents is removed and the abdomen is closed without drainage.

There are many things of interest connected with operations for ectopic gestations that I would like to go more fully into. One precaution I would like to mention especially and that is the use of rubber gloves. I never do an operation without them or even so much as dress a post operative case without their use. I do this first, for my own protection, and second, for the protection of the patient. I think perhaps they detract in a slight degree the tactile sense, but if they are thin and well fitting and if you have become accustomed to their use, I think the argument in favor of them far outweighs any little disadvantage one may have in that way. This does not signify that the hands should be prepared with less thoroughness, in fact I always take as much pains in the sterilization of my hands in using them as I would without.

In regard to closing the abdomen without drainage, having by experience learned of the great absorptive power of the peritoneum, and its facilities for caring for a limited number of germs, I do not hesitate to close the abdomen without drainage. In fact, I sometimes think that there is more danger from infection being carried into the abdominal cavity than there is any likelihood of its being carried out.

There is one other treatment I wish to mention only to condemn that is, the much vaunted treatment of electricity, as used by our illustrious electro-therapeutists. Their method is two fold, first to kill the foetus and second to cause its absorption. In any event this treatment is only applicable in the very earliest stage, in which diagnosis is most difficult. They use a cotton covered electrode in the vagina and one over the hypogastric region and turn on gradually a powerful current of 100 to 150 milliamperes. Massey, in the American Obstetrics Journal, collected 45 cases treated with electricity, with one death. I believe the treatment to be neither safe nor judicious.

COUNTY SOCIETIES

PROGRAM

The Okmulgee County Medical Society met in Okmulgee on August 3rd, 1908, at 8:00 p. m.

The Doctor and the People	Dr. Culp
Preventive Medicine and Sanitation,	Dr. Shankle
Etiologic Factors in Disease,	Dr. Bercaw
Smiles and Tears,	Dr. Cott

Refreshments followed the program.

A GOOD SHOWING

Out of a total of 22 doctors in Alfalfa County, 16 are members of the County Society. The Secretary, F. K. Slaton of Helena extends an invitation to the profession of the state to meet with them at Goltry on the 29th of October.

Dr. E. E. Headly, of Jett, disposed of his property and practice to Dr. W. M. Bassett, of Jett, and will locate at Buffalo, Oklahoma.

REPORTS OF COUNTY SOCIETIES WANTED

We would like to have the Secretaries of all County Medical Societies send us the reports of all their meetings, also notice of the time of their meetings, and what is expected to be done at the meetings, if such notice can be furnished in time to appear in the Journal before such meeting will be held, but the reports of the meetings may be sent in just as soon after the meeting as they can be prepared.

TO OFFICERS OF COUNTY MEDICAL SOCIETIES

Your secretary would like to have every secretary of every County Medical Society, write to him at once and answer the following questions: Are you in need of any blanks of any kind, and if so what kinds, and how many of each kind do you need? Would you like to have a new charter for your society, a new form having been issued since Statehood? Have you a filing case to keep your records according to the "Card Index System" and cards to make your records on?

Some more supplies will have to be ordered soon, and it is essential that the secretary know as nearly as possible how great a quantity will be needed; so dont put it off, but answer at once.

THE PURE FOOD AND DRUG LAW.

The pure food and drug law passed by the last legislature being too long to print in full, we have cut out such sections and parts of sections that seemed to be of little interest to the average physician, and printed those portions that seemed to us to be of interest to all. We presume that those who are especially interested can secure a complete copy of the law by applying to the Secretary of State.

BE IT ENACTED BY THE PEOPLE OF THE STATE OF OKLAHOMA:

Section 1. A Pure Food, Dairy and Drug Commission for the State of Oklahoma is hereby created, which shall be composed of the President of the State Board of Agriculture, the Secretary of the State Board of Agriculture, the Treasurer of the State Board of Agriculture, the State Commissioner of Health and the Secretary of the State Board of Pharmacy.

Sec. 2. The President of said Commission shall be the President of the State Board of Agriculture; the Secretary of said commission shall be the State Commissioner of Health, and the Treasurer of said commission shall be the Treasurer of the State Board of Agriculture.

Sec. 3. It shall be the duty of said commission to carry into effect the provisions of this Act and all other Acts in force or which may be hereafter enacted relating to foods, drugs and dairy products, and said commission is hereby authorized and empowered to promulgate and enforce such rules and regulations as they may deem proper and necessary to amend, alter and abolish the same from time to time, not inconsistent with the provisions of this Act. They shall also have the power to appoint one dairy inspector, one food inspector and one drug inspector; to prescribe their duties and powers, and to fix their compensation as hereinafter provided.

Sec. 5. The said Board of Commissioners shall receive their actual expenses while engaged in the performance of their duties in connection with this Act. They are all hereby authorized to employ a stenographer or clerk at a salary not to exceed seventy-five dollars per month, also to fix the compensation of the inspectors, not to exceed three dollars per day and actual expenses.

Sec. 6. For the purpose of this Act, there are hereby established two state laboratories for the analysis of food, feeding stuffs, drugs and medicines, which shall be under the supervision of said commission. One of said laboratories shall be established and located at the State University and the director of said laboratory shall be the professor of the department of Chemistry in the State University. The other laboratory shall be established at the State Agricultural and Mechanical College at Stillwater, and the director of said laboratory shall be the chemist of the experiment station in the said Agricultural and Mechanical College. To the said laboratory at the State University all samples of drugs and medicines shall be sent for analysis and examination. And to the said laboratory at the said Agricultural and Mechanical College shall be sent for analysis and examination all samples of foods and feeding stuffs and all samples of dairy products.

Sec. 7. Said pure food commission is hereby given full jurisdiction over the regulation and control of the manufacture and sale of all foods, drugs and medicines and dairy products, and shall be authorized and empowered to make inspections concerning the purity of the same and to bring prosecutions for violations as provided herein in the case of foods, drugs and dairy products, and shall exercise the necessary police authority in the

enforcement of this Act for the preservation of the public health.

Sec. 8. Any person, firm, company or corporation who shall import or receive from any other state or territory or the District of Columbia, or from any foreign country, or who having so received shall deliver, for pay or otherwise, or offer to deliver to any other person any article of food or dairy product mislabeled or misbranded within the meaning of this Act, or any person, firm or corporation who shall manufacture or produce, prepare, compound, pack or sell or offer or keep for sale in the State of Oklahoma any such adulterated, mislabeled or misbranded food or dairy product, shall be guilty of a misdemeanor; provided, that no article of food or dairy product shall be deemed adulterated, mislabeled or misbranded within the provisions of this Act where prepared for export beyond the jurisdiction of the United States and prepared or packed according to specifications or directions of the foreign purchaser when no substance is used in the preparation or packing thereof in conflict with the laws of the foreign country to which said article is intended to be shipped.

Sec. 9. The word person as used in this Act shall be construed to impart the singular and the plural as the case may demand, and shall include corporations, companies, societies and associations. When construing and enforcing the provisions of this Act, the act, omission or failure of any officer, agent or other person acting for or empowered by any corporation, company, society or association, within the scope of employment of his office, shall in every case be also deemed to be the act, omission or failure of such corporation, company society or association as well as that of the person.

Sec. 10. The term "food" as used in this Act shall include all articles of food, drink, liquor, beverage, confectionery or condiment used by man or other animal, whether simple, mixed or compound. The term "dairy product" as used in this Act shall include milk, cream, butter, cheese, skimmed milk, buttermilk, or any modification of the foregoing materials or compounds containing one or more of the same, and all products derived from milk.

Sec. 11. The standard of purity of foods shall be that proclaimed by the Secretary of the Department of Agriculture of the United States.

Sec. 12. The following minimum standards of purity for milk and cream are hereby established: Milk shall contain not less than three per centum of butter fat, and cream contain not less than eighteen per centum of butter fat, and it is hereby made unlawful for any person or persons to sell or offer for sale in this state, except under test, any milk or cream falling below said minimum standard therefor. In no event shall milk or cream be sold or offered for sale when produced within thirty days before or fifteen days after calving.

In testing milk or cream for commercial purposes under the provisions of this Act, the same shall be done in accordance with the rules and regulations therefor prescribed by said commission.

Sec. 13. Whenever the pure food inspector has reason to believe that any milk found by him is adulterated, he shall take specimens thereof and test the same with such instruments as are used for such purpose, and he shall make an analysis thereof, showing total solids, the percentage of butter, the percentage of water and the percentage of ash, and if the result of such test and analysis indicated that the milk has been adulterated or deprived of its fat below the requirements of section twelve of this Act, the

same shall be prima facie evidence of such adulteration in a prosecution under this Act.

Sec. 14. Authority is hereby given the city council of any city or the board of trustees of any town or village to appoint an inspector of milk in any such city or town and to fix his compensation, and when appointed the said inspector of milk shall have all the powers given by section twenty of this Act, and shall perform all the duties required of inspectors of milk as provided herein, and such other powers and duties as may be conferred or imposed by the ordinances of said cities or towns.

Sec. 15. No person shall offer for sale, sell, exchange or deliver, or have in his possession with the intent to sell, exchange or deliver any milk to which water, chemicals or preservatives or other foreign substances have been added. The term "milk" as used in this Act shall include all milk, cream or milk, in its natural state as drawn from the cow.

Sec. 16. Whoever shall adulterate, by himself or by his servant or agent, or sell, exchange or deliver, or have in his custody or possession with intent to sell or exchange the same, or expose or offer for sale, adulterated milk, or milk to which water or any foreign substance or substances in any state of fermentation or putrification or from any sick or diseased cows, shall be guilty of a misdemeanor.

Sec. 17. Whoever shall adulterate or cause to be adulterated, sell, exchange or deliver, or have in his custody or possession with intent to sell or exchange the same, or expose or offer for sale or deliver as pure milk, any skimmed milk, from which the cream or any part thereof has been removed, shall be guilty of a misdemeanor.

Sec. 18. Any dealer in milk who shall by himself, servant or agent, sell, exchange or deliver, or have in his custody or possession with intent to sell, exchange or deliver the same, milk from which the fat has been removed, so as to reduce the same below the requirements of section thirteen of this Act, unless in a conspicuous place above the center upon the outside of every vessel, can or package from which any such milk is sold, the words, "skimmed milk" are distinctly painted or printed, shall be guilty of a misdemeanor.

Sec. 22. It is hereby made unlawful to use and employ in and about the keeping or handling of any milk, cream or dairy products to be used as food, any pail, can, vessel, churn, separator or other implement which is in an unclean or unsanitary condition; or to operate any creamery or factory in the manufacture of any dairy products which is in an unclean condition.

Sec. 23. It shall be unlawful knowingly to sell or offer for sale any milk or cream from diseased or unhealthy cows, or from cows kept in a filthy or unsanitary condition, and the Pure Food Dairy and Drug Commission is hereby empowered to adopt and promulgate such rules and regulations governing the use of diseased milch cows and products derived from such cows, and to employ such scientific assistance in the enforcement of said rules and regulations as may in their judgment be deemed necessary.

Sec. 24. The said chief dairy inspector shall act on all reports and complaints he may receive from the Secretary of the Commission and from owners and managers of creameries, cheese factories, farmers and others who are interested in dairy products wherein are reported to him any violations of this Act, or conditions which result in making or rendering dairy products used or to be used for dairy, food or commercial purposes unclean or unwholesome, and take such action thereon as may be directed by said

Commission or the secretary thereof and as may be permitted by this Act, or he may deem necessary and proper for improving and advancing the best interests of the dairy industry in this state and public health. He shall also each month make to the Commission concise report of his transactions as said chief dairy inspector and make such recommendations in the premises as he shall deem proper and for the better perfection and encouragement of said industry. It shall be the duty of said chief dairy inspector and such other dairy inspectors as may be appointed by the Commission from time to time to inspect farm dairies, milk and cream receiving stations, creameries, factories and places where dairy products are produced, handled, tested, manufactured, sold or offered for sale and the products thereof, and all utensils, machinery, appliances, implements, and methods used or employed in connection therewith.

Sec. 27. It shall be the duty of every person engaged in the buying of cream for manufacture into butter, cheese, ice cream or other products to give a receipt or "cream check" therefor, clearly and thoroughly stating the name and principal place of business of the firm, corporation or association for whom such cream is purchased, and any person, firm, corporation, or association who shall violate the provisions of this Act shall be deemed guilty of a misdemeanor and in addition thereto shall forfeit his license or permit to engage in such business.

Sec. 28. Food shall be deemed adulterated within the meaning of this Act in any of the following cases:

First: If any substance has been mixed or packed with the food so as to reduce or lower or injuriously affect its quality, purity, strength or food value.

Second: If any substance has been substituted wholly or in part for the article of food.

Third: If any essential or valuable constituent or ingredient of the article of food has been wholly or partly abstracted.

Fourth: If it be mixed, colored, powdered, coated or stained in any manner whereby damage or inferiority is concealed.

Fifth: If it contain any added poisonous or other added deleterious ingredient in the food.

Sixth: If it consists in whole or in part of a filthy, decomposed or putrid animal or vegetable substance, or any portion of an animal or vegetable unfit for food, whether manufactured or not, or if it is the product of a diseased animal, or one that has died otherwise than by slaughter.

Sec. 29. Food shall be deemed mislabeled or misbranded within the meaning of this Act in any of the following cases:

First: If it be in imitation of or offered for sale under the distinctive name of another article of food.

Second: If it be labeled, or branded, or colored so as to mislead or deceive the purchaser, or if it be falsely labeled in any respect, or if it purport to be a foreign product when not so, or if the contents of the package as originally put up shall have been removed in whole or in part, and other contents shall have been placed in such package.

Third: If in package form and the contents stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package.

Fourth: If the package containing it or its label shall bear any statement, design or device regarding the ingredients or the substance contained

therein, which statement, design or device shall be false or misleading in any particular.

Fifth: When the package bears the name of the manufacturer, jobber or seller, or the grade of the product, it must bear the name of the real manufacturer, jobber or seller, and the true grade or class of the product, the same to be expressed in clear, distinct English words in legible type; provided, that an article of food shall not be deemed unbranded if it be a well known food product of a nature, quality and appearance, and so exposed to public inspection as not to mislead or deceive, or tend to mislead or deceive a purchaser, and not misbranded and not of the character included within the definitions one to four of this section. Provided, that all packages of imitation butter and cheese shall be so labeled.

Sec. 30. The term "drug" as used in this Act shall include all drug and medicine preparations recognized in the United States Pharmacopoeia or National Formulary for internal and external use, and any substance or mixtures of substances to be used for the cure, mitigation or prevention of diseases of either man or other animals; provided, that before any manufacturer or proprietor of any food, proprietary or secret preparations or product of any food or medicine used in the preparation of food, drug or liquor, or medicine shall sell, expose or offer for sale or exchange within said state, he shall first procure from the said Commission a license or permit to sell the same and shall pay a filing fee, and for each license or permit so filed in any sum not to exceed \$30.00 as required by said Commission, said filing fee to be paid annually.

Sec. 31. Any person, firm, company or corporation who shall impart or receive from any other state or territory, or the District of Columbia, or from any foreign country, or who having so received, shall deliver, for pay or otherwise, or offer to deliver to any other person any article of drug or medicine adulterated, mislabeled or misbranded, within the meaning of this Act, or any person who shall manufacture or produce, prepare or compound, or pack or sell, or offer for sale, or keep for sale in the State of Oklahoma any such adulterated, mislabeled or misbranded drug or medicine shall be guilty of a misdemeanor; provided, that no article of drug or medicine shall be deemed adulterated, mislabeled or misbranded within the provisions of this Act when prepared for export beyond the jurisdiction of the United States, and prepared and packed according to the specifications or directions of the foreign purchaser, when no substance is used in the preparation of packing thereof in conflict with the laws of the foreign country to which said article is intended to be shipped.

Sec. 32. The standard of purity of drugs and medicines shall be the United States Pharmacopoeia and National Formulary, and the regulations and definitions adopted for the enforcement of the food and drugs act of June thirtieth, nineteen hundred six, shall be adopted by the Pure Food and Dairy and Drug Commission for the enforcement of this Act, and such rules and regulations as the Pure Food and Dairy and Drug Commission may make not in conflict herewith.

Sec. 33. Drugs shall be deemed adulterated within the meaning of this Act in any of the following cases:

First: If when a drug is sold under or by a name recognized in the United States Pharmacopoeia or National Formulary, it differs from the standard of strength, quality or purity as determined by the tests laid down in the United States Pharmacopoeia or National Formulary official at the

time of the investigation; provided, that no drug defined in the United States Pharmacopoeia or National Formulary shall be deemed adulterated under the provisions of this Act if the standard of strength, quality or purity be plainly stated upon the package thereof, although the standard may differ from that determined by the test laid down in the United States Pharmacopoeia or National Formulary.

Second: If the strength or purity fall below the professed standard of quality under which it is sold.

Sec. 34. Drugs shall be deemed mislabeled or misbranded within the meaning of this Act in any of the following cases:

First: If it be an imitation of or offered for sale under the name of another article.

Second: If the contents of the package as originally put up shall have been removed in whole or in part and other contents shall have been placed in such package; or if the package offered for sale at wholesale or retail fails to bear the statement on the label of the per cent of alcohol by volume or the quantity of any morphine, opium, cocaine, hereoine, alpha or beta eucaine, chloroform, cannibus indicia, chloral hydrate, acetanilid, or other derivation or preperation of any such substances contained therein, except when prescribed by a licensed physician, licensed dentist or licensed veterinary surgeon.

Sec. 35. That the term "misbranded" as used herein shall apply to all articles of food and drugs, or articles which enter into the composition of foods and drugs, the package or label of which shall bear any statement, design or device regarding such article or the ingrediants or substances contained therein, which shall be false or misleading in any particular.

Sec. 36. The term "package" as used in this Act shall be construed to include the original unbroken package, phial, bottle, jar, demijohn carton, bag, case, can, box, barrel or any receptacle, vessel or container or whatsoever material or nature which may be used by a manufacturer, producer, jobber, packer or dealer, for enclosing any article of food or any drug or medicine when exposed or offered for sale.

Sec. 37. The possession of any adulterated, mislabeled or misbranded article of food, dairy product or drug, or the offering for sale, or the sale of any adulterated, mislabeled or misbranded food, dairy product or drug by any manufacturer, producer, jobber, packer or dealer in food or drugs, or broker or commission merchant, agent, employee or servant of any such manufacturer, producer, jobber, packer or dealer shall be prima facie evidence of the violation of this Act.

Sec. 38. Whenever any hotel, tavern, restaurant or boarding house shall knowingly serve for the use of its patrons such food as is defined in this Act as compounds, imitations, blends, renovated butter, imitation cheese, adulterated milk or adulterated lard shall keep conspicuously posted or printed in a bill of fare a list of the articles of food so served in plain and legible words, the brands or labels upon the original package or the constituent parts of such food articles.

Sec. 42. It shall be unlawful for any person to manufacture, sell or expose for sale or exchange any article of food to which has been added formaldehyde, borax, boracic acid, benzoic acid, sulphurous acid, salicylic acid, adrastol, beta-naphthal, flourine compounds, saccharine, alcohol; provided, that in the case of molasses and syrups and bleached dried fruits, that in the finished products, sulphurous acid, flourine compound and

chlorine are entirely removed subject to the rules of the National Pure Food Commission; provided that the spreading of dry borax over the surface of meat cannot be construed to be a violation of this Act.

Sec. 43. It shall be unlawful for any person to manufacture, sell or offer to expose for sale or exchange, as extracts, flavoring, which was not made from the natural fruit, unless the same are labeled "imitation;" provided, that the word "imitation" must immediately precede the name of the flavoring, in the same type and style; such flavoring shall be free from coloring matter deleterious to health.

Sec. 44. It shall be unlawful for any person to sell, offer, or expose for sale or exchange any honey which has not been home made by bees unless the same is labeled "imitation" and contains nothing that is injurious to health.

Sec. 45. It shall be unlawful for any person to manufacture, sell, offer or expose for sale or exchange extract of vanilla, essence of vanilla or spirits of vanilla, not wholly made from the extracted matter of vanilla beans.

Sec. 46. It shall be unlawful for any person to manufacture, sell, offer or expose for sale or exchange to the residents of this state any spices and condiments, either ground or unground, which are adulterated with any foreign substance or substances within the meaning of this Article which are injurious to health, and provided, that where foreign substances are used the package containing said articles offered for sale shall contain the word "compound." The terms "spices" and "condiments" as used herein shall embrace all substances known and recognized in commerce as spices and used as condiments, whether the same be in natural state or in the form which would result from grinding, milling, or mixing or the compounding of the natural product.

Sec. 50. Any corporation, firm or person, either in person or by an agent, who shall sell, or expose for sale, within the state of Oklahoma, any oysters, clams or other sea food products, to which salicylic acid, formaldehyde or any drug or other preservative has been added, or in preserving which any poisonous or deleterious substance has been used, shall be guilty of a misdemeanor.

Sec. 55. It shall be unlawful for any person, firm or corporation to sell or offer for sale in this state any colored distilled vinegar.

It shall be unlawful for any person in this state to sell or offer to sell any loaf bread manufactured outside of the state of Oklahoma without having pasted on each loaf of such bread a label having written or printed thereon the date and hour of the day the same was baked, and it shall be unlawful to sell any bread over seventy-two hours after the same was baked, without informing each person purchasing or offering to purchase the same that it is "stale bread."

Sec. 57. Any person manufacturing for sale, or selling or offering to sell or exchange any candies, or confectioneries, adulterated by admixture of terra alba, barytes, talc, or other earthy or mineral substances, or any poisonous colors, flavors or extracts, or other deleterious ingredients detrimental to health, shall upon conviction thereof before a court of competent jurisdiction, be punished by a fine of not less than ten nor more than one hundred dollars, or by imprisonment in the county jail not less than ten days nor more than thirty days, or by both such fine and imprisonment.

Sec. 58. If any person shall have in his possession or control any

article or articles of adulterated or misbranded or mislabeled food, drugs or medicines, contrary to the provisions of this Act, he shall be held to have possession of property with intent to use it as a means of committing a public offense, and all the provisions of the chapter in the statutes of the state of Oklahoma relating to search warrants and proceedings thereon shall apply.

Sec. 59. There is hereby appropriated out of the funds in the State Treasury not otherwise appropriated the sum of five thousand dollars, or so much thereof as may be necessary for the purpose of paying the salaries and expenses of the officers created under this Act and for the maintenance of the State Laboratories created under this Act, and necessary expenses incurred in the enforcement of this Act.

Sec. 60. It shall be the duty of the Pure Food Inspector to make, or cause to be made, by one of the directors of the state laboratories, examinations and analysis of food or drugs on sale in Oklahoma, suspected of being adulterated, mislabeled, misbranded, impure or unwholesome, in contravention of the law, and if, upon examination or analysis, it is found that said food or drug is adulterated, mislabeled, misbranded, impure or unwholesome, it shall be the duty of the Pure Food Inspector to make complaint against the manufacturer or vendor thereof, in the proper county, and to furnish the evidence thereon, and thereof to obtain a conviction of the offense charged.

Sec. 63. One-half of all fines collected by any court or judge for the violation of the provisions of this Act, shall be paid to the State Treasurer, one-half shall be paid into the treasury of the county where such cases are prosecuted.

Sec. 68. An emergency is hereby declared by reason whereof it is necessary for the immediate preservation of the public health, peace and safety, that this Act take effect from and after its passage and approval.

GEO. W. BELLAMY,

President of the Senate.

WM. H. MURRAY,

Speaker of the House of Representatives.

Approved May 26, 1908.

C. N. HASKELL,

Governor of the State of Oklahoma.

E X C H A N G E S .

ACCEPTS THE PRESIDENCY.

From the Office of the Secretary-General of the International Congress on Tuberculosis, the Colorado Building, Washington, D. C., May 20.

President Roosevelt has accepted the presidency of the International Congress on Tuberculosis. His letter to Dr. Lawrence F. Flick, chairman of the Committee on Arrangements for the Congress, follows:

THE WHITE HOUSE, WASHINGTON,

SIR:

MAY 12, 1908.

It is with great pleasure that I accept the presidency of the "International Congress on Tuberculosis," which is to meet in this city on Sept. 21, 1908, and extend its session to Oct. 12, 1908. Official duties, however, may prevent my presiding at the initial meeting of the Congress, in which case I will deputize Secretary Cortelyou.

The importance of the crusade against tuberculosis, in the interest of which this Congress convenes, cannot be over-estimated when it is realized that tuberculosis costs our country two hundred thousand lives a year, and the entire world a million lives a year, besides constituting a most serious handicap to material progress, prosperity and happiness, and being an enormous expense to society, most often in those walks of life where the burden is least bearable.

Science has demonstrated that this disease can be stamped out, but the rapidity and completeness with which this can be accomplished depends upon the promptness with which the new doctrines about tuberculosis can be inculcated into the minds of the people and engrafted upon our customs, habits and laws. The presence in our midst of representatives of world-wide workers in this magnificent cause gives an unusual opportunity for accelerating the educational part of the program.

The modern crusade against tuberculosis brings hope and bright prospects of recovery to hundreds and thousands of victims of the disease, who under old teachings were abandoned to despair. The work of this Congress will bring the results of the latest studies and investigations before the profession at large and place in the hands of our physicians all the newest and most approved methods of treating the disease—a knowledge which will add many years of valuable life to our people and will thereby increase our public wealth and happiness.

The International Congress on Tuberculosis is in the interest of universal peace. By joining in such a warfare against a common foe the peoples of the world are brought closer together and made to better realize the brotherhood of man; for a united interest against a common foe fosters universal friendship. Our country, which is honored this year as the host of other nations in this great gathering of leaders and experts, and as the custodian of the magnificent exhibit which will be set up by the entire world, should manifest its appreciation by giving the Congress a setting worthy of the cause, of our guests, and of ourselves. We should endeavor to make it the greatest and the

most fruitful Congress which has yet been held, and I assure you of my interest and services to that end.

With expressions of appreciation for the compliment conferred in extending the invitation to become president of the Congress.

Very respectfully,

THEODORE ROOSEVELT.

The Medical Association of the Southwest

THIRD ANNUAL MEETING

Kansas City, Missouri, October 19-20-21, 1908

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BACON SANDERS, M. D.	Chairman Surgical Section
Fort Worth, Texas.	
F. HAYNES BUXTON, M. D.	Chairman Section Eye and Ear
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F. H. CLARK, M. D.	Secretary
El Reno, Okla.	
F. YOUNG, M. D.	Chairman Section on Practice
Springdale, Ark.	
JOHN PUNTON, M. D.	Chairman Committee on Arrangements
532 Altman Bldg., Kansas City, Mo.	

COMMITTEES.

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- Meeting Place, Exhibits, Hotels—R. M. Schauffler, M.D., chairman; R. T. Sloan, M.D., B. H. Zwart, M.D.
- Printing, Publication, Badges—O. L. McKillip, M.D., chairman; John Punton, M.D., J. A. Sawtell, M.D.
- Pathological Exhibits—A. E. Mertzler, M.D., Frank J. Hill, M.D.
- Finance—C. Lester Hall, M.D., chairman; J. M. Frankenburger, M.D., J. N. Jackson, M.D., Geo. M. Gray, M.D., Kansas City, Kas.
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- General Clinics—Jabez N. Jackson, M.D., chairman. (To be arranged.)

Reception Committee.

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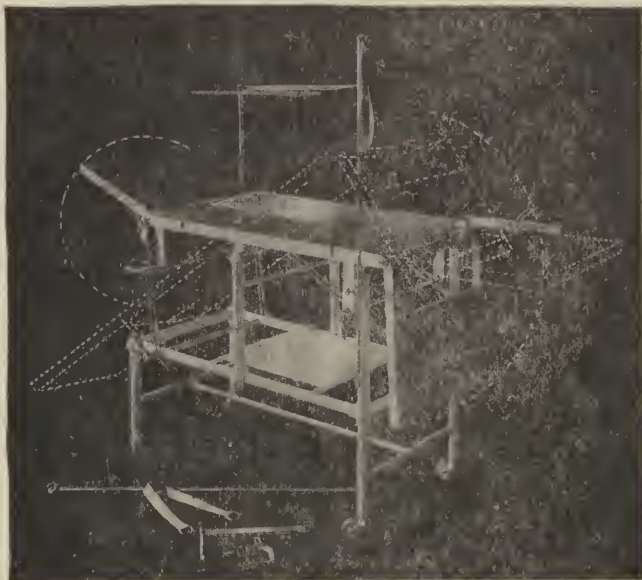
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Alfalfa.....			F. K. Slaton.....	Helena
Atoka.....	W. A. Logan,	Lehigh.	L. S. Willour.....	Atoka
Beckham.....			Harry O. Jones.....	Elk City
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Journal of the Oklahoma
State Medical Association

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JOURNAL

OF THE

Oklahoma State Medical Association

VOL. 1

GUTHRIE, OKLAHOMA, SEPTEMBER, 1908

No. 4

E. O. BARKER, EDITOR-IN-CHIEF.

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H. P. WILSON, Wynnewood.

E. N. WRIGHT, Olney.

Entered at the Postoffice at Guthrie, Oklahoma, as second class mail matter, September 1908.

This is the Journal of the Oklahoma State Medical Association, and every member is entitled to a copy every month; and if any member does not receive his Journal promptly, the matter should be reported to this office.
Communications of all kinds should be addressed to the Editor.

OUR ADVERTISING POLICY

Resolved, That this Association heartily approves the action of the Board of Trustees in restricting advertisements of medical preparations to those approved by the Council on Pharmacy and Chemistry; and, further,

Resolved, That this House of Delegates request all those State Associations which now do or hereafter may publish or control medical journals to restrict their advertisements to such approved preparations, and that the General Secretary be requested to bring this Resolution to the attention of all State associations.

The above resolution was passed by the House of Delegates of the American Medical Association, at the last annual meeting, and in a way, the state medical journals are asked to fall in line.

Now we have no objections to the Journal of the American Medical Association, or any other journals, adhearing to the rule of admitting nothing in their advertising columns that has not been approved by the Council on Pharmacy. But for the Journal of the Oklahoma State Medical Association, we feel that there are a great many good preparations that the Council has not yet passed upon, and that it will be a long time yet before anything like all can be passed upon—perhaps never—that it is too soon to draw the line to that extent.

Again, the fact that the Council has approved a preparation does not clear the way in every case; as, for instance, we find that the Council examined "Urotropine" and tells us that it is "A name applied to Hexamethylenamina, U. S. P., two other words are used as synonyms of the product, "Hexamethylena-

mine" and "Hexamethylenetetramine," but when we consult the advertisement of "Urotropine" in the *Journal of the A. M. A.*, we find the following statement, which contradicts the statement of the Council on Pharmacy.

Dr. H. P. Thompson (*Edinburgh Medical Journal*, Feb., 1907) concludes from his experimentation in the Edinburgh City Hospital with Urotropin and imitative products for the prophylaxis of scarlatinal nephritis: "The only drug that prove to be of any value is Urotropin. Hexamethylentetramine certainly did not diminish the nephritis Hexamethylentetramine was substituted because it was cheaper in treating a large number of patients, but I do not consider that it is the exact equivalent of Urotropin when considered from the point of view of clinical results. All cases of scarlatina should be treated with 5-gr. doses of Urotropin thrice daily for children up to 12 years, and 7½-gr. thrice daily for patients above that age."

The same advertisement closes with the following flat, open bid to the laity to buy their tablets direct from the druggist, without the trouble of having to consult the physician:

The best security against substitution is afforded by prescribing

UROTROPIN TABLETS

which are stamped "E. Schering." Thus the cost of dispensing is also avoided.

The same old trick as worked on the profession by the Antikamnia, Cystogen and several others of the same type; and the sad fact is that there are yet doctors in Oklahoma who are yet prescribing these "marked" tablets, and incidently encouraging self-drugging on the part of their patients. Gentlemen, if you must prescribe these nostrums, for the sake of your patrons and the good name of your profession, don't do it in the form of "marked tablets."

As to refusing manufacturing houses admission to our advertising columns because they have made extravagant claims for their wares, we are of the opinion that if that rule should be strictly enforced, there would soon be a conspicuous absence of the advertisements of all proprietary preparations.

How about the Battle Creek Sanitarium, run by Dr. J. H. Kellogg, with his series of medical books and pamphlets written for the laity, his numerous breakfast foods that work such wonders for those who use them, and his various diabetic foods, without starch or sugar?

We do not wish to be understood as not approving the work of the Council on Pharmacy, for we appreciate the good work that it is doing, and it is not probable that we shall admit anything to our columns that has been shown by the Council to be fraudulent; yet, in view of the fact that there is so much that the Council has not yet touched upon, we feel inclined to use our own judgment in the case, and will for the present accept such advertisements as seem to us to be proper.

THE NEW HEALTH LAW.

In this issue of the Journal may be found the new Health Law, as it was passed by the last Legislature, signed by the President of the Senate and the Speaker of the House, and approved by the Governor on the 11th day of May, 1908.

It will be seen that the law, as printed herein, provides for the appointment of the various county health officer by the respective Boards of County Commissioners, and that an emergency clause is attached; whereas the law as given out by the Codifying Committee, provides that the State Commissioner of Health shall appoint the County Health Officers, and there is no emergency clause attached.

As stated above, the bill was passed by both houses of the Legislature, signed by the presiding officers of both branches of that body, and on the 11th day of May, 1908, was approved by Governor Haskell and filed with the Secretary of State, according to law.

The law was still unchanged on the 9th of June, when the copy used by the Journal was made. On the 20th of June, Dr. J. C. Mahr, who expected to be appointed State Commissioner of Health, which expectations have since been realized, passed through Oklahoma City on his way to Guthrie, and is said to have made the statement that he was going to Guthrie to have the new Health Law changed, that as it had been passed it did not give the State Health Commissioner the power of appointing the County Health Officers, as he desired it should. On June 22d, the law was found to have been changed by the substitution of "State Commissioner of Health" for "Board of County Commissioners." See second line, Section 6, and the emergency clause had been marked out.

Mr. Duffy, a clerk in the office of the Codifying Committee, acknowledged, in the presence of Mr. Cross, Secretary of State, and two other gentlemen, that he had made the changes at the instance of the Codifying Committee.

Under the law as certified up to the Secretary of State, the County Commissioners of several counties had exercised their authority by appointing County Health Officers for their respective counties, so it seems that the matter will have to be taken through the courts before we can know just what the law really is.

AN OMISSION.

Through some mistake on the part of the printer or some one else, the most of Section 18 of the new Medical Law was left out when we printed the law in the July issue of the Journal; the omitted part follows:

The doing of any of the acts in this section mention shall be taken to be prima facie evidence of an intent on the part of the person doing any of the said acts to represent himself as engaged in the practice of medicine or surgery, or both. But nothin gin this Act shall be so construed as to prohibit the service in the case of emergency or the domestic administration of family remedies; nor shall this act apply to any commissioned medical

officer in the United States army, navy or marine hospital service in the discharge of his professional duties, nor to any legally qualified dentist when engaged exclusively in the practice of dentistry, nor to any physician or surgeon from another state or territory, when in actual consultation with a legal practitioner of this State, if such physician or surgeon is, at the time of said consultation, a legal practitioner of medicine and surgery in the state or territory in which he resides, nor to any physician or surgeon residing in the border of a neighboring state and duly authorized under the laws thereof to practice medicine and surgery therein, whose practice extends within the limits of this State, providing that such physician or surgeon shall not open an office or a place to meet patients or receive calls within the limits of this State.

INTERNATIONAL CONGRESS ON TUBERCULOSIS.

Preparations are in progress for an excursion party to Washington for the Missouri Valley to attend the International Congress on Tuberculosis, which meets on September 21, and continues for three weeks. For itinerary and full particulars, address Dr. Chas. Wood Fassett, Secretary Medical Society of the Missouri Valley, St. Joseph, Mo.

EMINENTLY PROPER.

In another part of the Journal may be found a resolution passed by the Washington County Medical Society, which seems to be a move in the right direction; and it might be well for other County Societies to do likewise.

MEDICAL ASSOCIATION OF THE SOUTHWEST.

Meets in Kansas City October 19, 20, 21, 1908—Headquarters Coates House.

Dear Doctor: Desirous of making the social feature of the coming meeting of the Medical Association of the Southwest a special attraction, we wish to enlist your co-operation by asking you not only to attend, but to bring the ladies along.

The ladies are to be entertained by the courtesy of the Kansas City doctors. A banquet for the ladies and gentlemen, with a musical and literary program, will be given on Monday night at the Coates House.

An automobile ride has been arranged for Tuesday afternoon. After seeing Penn Valley, Armour and Benton Boulevards, and the famous Cliff Drive, they will be taken to the Evanston Golf Club for tea, and then brought back to the Coates House, the headquarters of the Association.

In order to complete the arrangements, kindly advise us at once of the number of ladies who will accompany you.

If not a member already, inform the Secretary and Treasurer, Dr. F. H. Clark, of El Reno, Okla., of your intention to become one.

Come Sunday and remain all the week.

Address,

DR. FLAVEL B. TIFFANY,
Chairman Ladies' Reception Committee.
805 McGee Street, Kansas City, Mo.

A mutual understanding between the physician and patient in the management of a serious fracture must always be effected with regard to the ultimate result, the time and effort necessary to re-establish the greatest degree of function.—Senn.

Original Articles

UNUSUAL GUNSHOT WOUNDS.

With Report of Cases.

(By David A. Myers, Lawton, Okla.)

Read before the Oklahoma State Medical Association at Sulphur, May 14, '08.

Case No. 1, rifle ball wound of head, August, 1907, boy 14. Shot by companion with 22 calibre short rifle. Entrance wound 1 1-4 inches above right orbit—no exit wound. First saw patient 34 hours after injury—found following conditions: Patient extremely irritable, conscious when aroused—not suffering pain, was delirious at times. Had had one convulsion. Had not slept since injury. Constant motion of right arm and leg. Left side immobile, but no paralysis. A prognosis of “death in six hours” had been rendered, but patient being alive at the end of 24 hours and not much worse than at first, the father asked for counsel. Nothing had been done to the wound, which was probably good surgery. An examination revealed a small entrance wound in skin and a large opening and radiating fracture of outer plate with small fragments of inner plate protruding and loose in the brain tissue. I made a “V” shaped incision, turning flap up, removed loose bone and enlarged openings in both inner and outer plate—found brain tissue much lacerated and torn, with several small pieces of bone imbedded in the brain. Fully realizing the danger of infection injury to the brain tissue, I decided to probe, carefully following the track of the bullet, I passed an aluminum probe easily 7 inches, when I met with resistance and desisted. The course of the bullet was straight back from entrance wound. I passed a small iodoform gauze drain 2 inches, as I figured I had an infected wound, and left instructions to remove same in 24 hours and close external wound with sutures if no untoward symptoms arose. The gauze was removed, but for some reason the wound was not closed, which, in light of later results, proved to be a very serious mistake.

Four weeks later the attending physician reported the boy as being able to be around. Paralysis slight of left arm and leg. Left facial paralysis and large amount of granulation tissue in the incision wound. Said he had been burning same off every day, but without apparently gaining any on it. I had patient brought to hospital and found as I expected a cerebral hernia 3 inches in circumference. I amputated this and lifting the old scar tissue, I was able to cover the opening in the skull and obtain primary union over the old line of incision

except for one minute opening. He was dismissed on the fourth day and sent home, the next morning he awoke and found his pillow and bed wet and a clear colorless fluid dripping from a small opening in the incision. He was again removed to the hospital and the case watched for a few days. I then decided to try and stop the flow and if possible let nature equalize the pressure. I closed the opening with adhesive and in an hour my patient was comatose, with complete paralysis of left side—involuntary passage of urine and faeces—breathing slow—with full pulse, could be aroused but could not speak, right pupil contracted, left dilated, both sluggish. On allowing cerebro spinal fluid to again flow symptoms promptly disappeared and in a few hours my patient was bright as usual. I persisted in starting and stopping the flow, gradually increasing the stoppage periods with less and less signs of disturbance until finally 3 1-2 months ago the flow ceased and I discharged the boy as well. Thirty days later he begged father to let him run a riding stock cutter. The jarring and jolting of this caused the old track of the bullet leading to the lateral ventricle to open up and in a short space of time a large pulsating fluctuating ventrocele was formed. The pressure symptoms again appeared and gradually increased until the urgency of relief was apparent. I opened and two ounces of cerbo spinal fluid were evacuated. The symptoms were greatly relieved as long as fluid was allowed to escape. I have repeatedly tried to close opening but am unable to do so on account of pressure symptoms reappearing. At this time I have established permanent drainage and my patient while not getting well is seemingly at a stand-still.

Gunshots wounds of the skull show the same peculiarity as that of the soft parts. The entrance wound is small and exit wound large. Bullets striking the skull at a tangent may produce serious internal effects without inflicting a wound of much consequence externally, this is the so called "gutter wound." Thus a grooved external wound may cover a depressed inner table—a separated dura or a contused brain. The brain is incompressible and has the characteristics of a fluid so that a bullet entering the skull may very easily have an explosive effect, however, this effect depends entirely on the velocity of the missile. A velocity of 6 to 7 hundred feet per second will not produce this effect while one from 1200 to 2000 feet at short range will surely produce explosive effects both on the bone and skull contents. This fact should be taken into consideration in treatment and prognosis. The principles of treatment of gunshot fractures of skull are the same as other compound factures, there being this difference, greater extent of facture and more frequent occurrence of foreign bodies. Foreign bodies should be removed, if easily accesible, not otherwise, for the bullet may traverse the brain and rebound from the inner side of the skull at an unknown angle, or if arrested

in the brain the force of gravity may force it to settle quite out of line with the track of entrance and impossible to find even at an autopsy. It is evident that a long search for a bullet in the brain would produce more damage than the presence of it. It is good surgery, however, to remove the bullet if its removal would indicate less danger than its presence. Warton in a long series of reports finds the mortality nearly twice as great when the bullet is allowed to remain. The same result being observed in pre antiseptic surgery. A small aluminium probe should be used in searching and if one is careful and a very thorough search may be made through brain tissue without much injury, this statement does not include infection dangers. The Roentgen Ray may be used to assist in locating bullets or one of the more elaborate telephone probes, however, the greater ease with which bullets are located does not signify that there is anything to be gained by a capital operation for the removal of a harmless inbedded bullet. For while all gunshot wounds of any portion of the body are contaminated, they may not be infected to such a degree as to cause inflammation.

The infection or non-infection of a wound is of much importance in determining prognosis and treatment and we should carefully consider the determining factors.

High velocity bullets are less liable to infect a wound than those of low velocity for the high velocity bullet gives a clean cut wound of both clothing and body. The larger the missile the greater the chances of the wound being infected primarily and secondarily.

The shape of the bullet has much to do with the infection, a flattened ragged bullet produces a wound much more liable to become infected than one made by a well formed smooth bullet. The condition of the skin bears on infection. Wounds through the hairy scalp and of the hands and feet are not liable to escape infection. Likewise the condition of the clothing or head covering bears on infection, as does the character of the cloth. Wounds inflicted through light weight cotton clothing are less liable to be the cause of infection than those made through heavy wool clothing. Whether or not a bullet has entered the body direct, or has ricocheted and possibly become contaminated, and as to the length of time carried in pocket or belt, (experiences having shown that the ordinary cartridge in its original package is to a great extent sterile), made so by the process of manufacture. All the above factors are of importance to the surgeon in arriving at a conclusion as to the infection or non-infection, either primary or apt to occur secondarily. The ordinary micro organisms are found—most commonly the staphylococcus, as this is the one ordinarily found in the skin and on the clothing. This infection is the one most apt to cause abscess formation, and localized inflammation, however, delayed treatment may cause extensive inflama-

tions. In pre antiseptic days such extensions were common, resulting in metastases, pyaemia and other sequalae. With streptococcus infection, diffuse inflammation is the rule with all the sequalae of septicamiae. Mixed infections show characteristics of both. The tetanus bacillus is frequently observed in gun shot wounds. The conditions of a gun shot injury being peculiarly adapted to the growth of this germ. It being an anaerobic bacilli, growing only in the absence of oxygen, the deep seated and punctured or even superficial wounds beneath the skin—favor the growth and development of this bacilli. Modern surgical methods greatly lessen the danger of secondary infections. There being primary infection the surgeons efforts and skill are to be expended in limiting this. Vice versa in a non-infected wound every effort should be made to prevent entrance of pathogenic organisms. Wounds of the cranial regions may be classed under two heads:

First—Those involving cranium without injury to cranial contents.

Second—Those in which the cranial contents are injured. Three factors enter into prognosis in penetrating wounds of the cranium:

First—The part of the brain penetrated.

Second—The velocity of the missile.

Third—Infection.

Basal penetrations are always unfavorable. Superficial wounds of the upper portions of the brain and even deeper ones of the frontal regions may have a favorable ending if the bullet velocity is low and infection do not occur. In low velocity bullets the gravest injury is to the skull while the wound of the brain is usually only perforating. The complications of gun shot wounds of cranium are:

First—Shock.

Second—Hemorrhage.

Third—Concussion.

Fourth—Compression.

Shock is one of the most prominent symptoms, particularly in perforating brain injuries as in this class of cases the injury affects the vital centers.

Concussion in penetrating wounds does not often occur, when it does it is of little consequence and its symptoms so mingled with those of shock that they are extremely hard to differentiate. The immediate effects of gun shot wounds of brain are depression of vital energies, usually unconsciousness. The symptoms of shock are present and in the grave cases death rapidly ensues. If enough time intervenes, the stage of depression is followed by one of excitation with delirium, restlessness, muscular contractions or weakness, perhaps local or general paralysis. Frequent after effects in favorable cases are epilepsy, neuralgia and mental weakness.

Compression of the brain usually occurs from depression

of bone, or hemorrhage. In the case just reported the compression symptoms came from the disturbance of the Lateral Ventricle and the excessive accumulation and unnatural location of cerebro spinal fluid. Compression symptoms due to depressed bone fragments usually come on soon after the injury and when prominent will indicate that there is not much destruction of brain structures, for when there is much destruction of brain tissue the mere fact of pressure by bone usually gives rise to very little disturbance, at least they may be regarded as only secondary to the main symptoms.

The treatment of the complications of cranial gun shot wounds depends on asepsis, nature of injury, condition of patient, and environment in which the work must be done.

Early accurate differential diagnosis is oftentimes hard. But fortunately this is not as essential as one would suppose for if the injury is one severe enough to cause a confusion of symptoms, "First Aid" surgery is about all that is indicated, except in the case of control of hemorrhage and relief measures for shock. Nearly all deaths from cranial gun shot wounds when not due to primary traumatism are traceable to the inflammatory process, therefore, after a competent study of all conditions surrounding the injury, including the fire arm, size and style of bullet, probable velocity, portion of the cranium injured, probabilities of infection, primary and secondary, and probable amount of injury to cranial contents one can come to some pretty definite conclusion as to course of treatment.

In my opinion unless there is imperative need of surgical interference the expectant plan is the best until your patient can be brought into aseptic environment, of course, when you have a manifestly infected wound or there is compression by bone fragments or hemorrhage, delays are fatal and immediate surgical exploration should be made.

Case No. 2. Pistol wound of chest. Inflicted Dec. 25, 1907, young man age 22. Wound inflicted at short range with calibre 38 Colts revolver. Entrance wound at posterior border of axilla on left side, small slit like opening, no exit wound, but bullet extracted by Dr. P. G. Fuller of Temple, Oklahoma, one inch to the right of the dorsal vertebrae having passed anterior to spinal column. Range of bullet across body was antero posterior. Bullet considerably flattened and out of shape showing evidence of having struck some hard substance in its path, evidently the rib or spinal column.

I first saw patient January 2, following and elicited history as follows:

Some slight shock following injury which lasted but a short time, quite a good deal of pain for a few hours, pleuritic in nature, dyspnoea had been present for two or three days then disappeared. There was considerable cough with haemoptysis, directly following the injury, but this also disappeared on the second day, on the fourth day symptoms of pneumonia, (so

called) developed in the left side, examination on the seventh revealed the following:

Exit and entrance wounds entirely healed, pallid, anaemic skin, clammy perspiration, pulse 140, resp. 40 and very painful accompanied by a peculiar respiratory grunt, tem. 101 2-5 inability to lie on injured side of body at all and for only short spaces of time on sound side, preferring the half reclining position. Dyspnoea gradually increasing, loss of voice, nothing possible except short whispered sentences and then delivered in a jerky manner with great effort. All bodily functions active. Locally there was dullness from the probable line of the bullet to the base of lung cavity, vocal fremitus gone, vocal resonance gone, no breath sounds over area of dullness. Skodiac resonance of apex—apparently some increase in girth of left side. I was not entirely satisfied with the diagnosis of acute traumatic pneumonia, but favored hemothorax, however, I concurred in diagnosis and agreed to return in 48 hours. On my return the local symptoms left no room for doubt as to there being fluid in the chest cavity and the natural inference was that it was either an inflammatory exudate from the plura or a hemothorax, percentesis in the 7th intercostal space relieved the patient of 16 pints of sero sanguinous fluid, no pus, dyspnoea was much relieved and the heart action fell to 116, but precussion still gave dullness over the same area with loss of breath sounds and vocal fremitus as before. Bloody mucous, frothy expectoration still continued and the fever persisted. I now informed my patient that there was two conditions, a probable septiac pneumonia and an effusion in the pleural cavity, neither of which need necessarily prove fatal. 48 hours later I was recalled because of a reoccurrence of the dyspnoea and a feeling as the patient expressed it "of filling up." The local symptoms were as before, temp. 99 3-5, pulse 101—aspiration drew off 8 pints of fluid of same character as before, dullness after aspiration was present only over lower portion of lung, "but filling up again" as he said—aspiration drew off 7 pints of fluid and relieved him very much. The next day dullness had returned as high as the 7th interspace posterior to axillary line and I again aspirated and drew off 4 pints of fluid, again the same day I aspirated low down in the chest cavity and drew off 2 pints which seemed to completely restore the precussion sound on this side. There was some increased resonance, but entire absence of breath sounds as high as 7th interspace. The next day the dullness returned and aspiration drew off 2 pints. I now decided to do a resection and establish permanent drainage. On entering the pleural cavity I found it absolutely dry and in a normal condition. The aspirating needle through the visceral pleura drew off the characteristic fluid and gave one the sensation of plunging a needle into a cavity.

I sutured the visceral pleura to my incision after resecting a portion of two more ribs and enlarging the opening in the

visceral pleura, a large quantity of fluid of the same character as before escaped and with it a great many large and small pieces of lung tissue. The lower border of the lung presented a frayed sloughing appearance. 48 hours later on removing the dressing what looked to be and later proved to be the entire left lung slipped easily through the incision. Up to this time large quantities of fluid of the same character as the aspirated fluid had come from the cavity. The next dressing the character of the fluid had entirely changed, while there was still some of the sero sanguinous fluid the greater portion consisted of whitish gray, oily feeling, thick fluid which had a malt odor and contained quite a few particles of decomposed lung tissue. These particles gradually disappeared, the fluid becoming thinner, more oily and with a more pronounced odor which reminded me of the odor one gets from the regurgitated milk from a nursing baby. The quantity of this varied from day to day running as low as a half pint and as high as a pint. Exploration of the thoracic cavity by means of a small diagnostic lamp revealed a perfectly empty chest cavity on the left side. The cardiac impulse being plainly visible, as were the respiratory movements of the right lung, the level of the 7th or 8th dorsal vertebra I could distinguish an area which seemed to be bathed in and exuded the kind of fluid which I have described.

My patient was suffering no pain, carried no temp, pulse ranged around 116. Following the resection he developed a heart murmur and the heart action gave considerable trouble for some two or three weeks until such time as the chest cavity began to fill in. I attribute this untoward heart action to the absence of the usual mechanical supports to the left of the heart, and the opening of the thorax and the murmur to the gradually increasing anaemia and loss of weight. Appetite was excessive during this period as many as ten full meals in a day being allowed and although digestion was complete there was no gain in either strength or flesh, but decided loss of both with increasing anaemia. I had concluded long before that I had to deal with the thoracic duct, and had sent the first specimen of milky fluid obtained to the City Chemist at Oklahoma City. He reported many broken down cells and decomposing tissue but "not Chyle," however, later on I made repeated tests of the fluid and am firmly convinced from the clinical history and microscopical and other findings that I had to deal with an injury to the thoracic duct. Under the scope the picture was very interesting, the fat was in a very fine state of subdivision and resembled a very fine emulsion. The addition of ether with agitation caused the fluid to become clear. The specific gravity varied from 1010 to 1025. The reaction was alkaline. When allowed to stand a thin layer of yellowish colored oil or fat arose to the surface. Realizing that my case was hopeless in the condition it was, I was about decided to open the chest cavity and by some mechanical means if it were possible stop the flow of

chyle, when my patient contracted a severe La Grippe lasting several days, during this period he was kept on liquid diet but was all the time clamoring for more to eat.

During this period I noticed a reduction of the amount of fluid escaping and when the acute stage of the La Grippe had passed I ordered both food and fluid by the mouth stopped and resorted to rectal feeding, this with hope of entirely emptying the duct and allowing it, if possible, to heal. During all this period the left chest was gradually collapsing, the diaphragm had ascended to nearly the level of the thoracic incision, the heart had gradually been pushed over until I could reach in and touch the pulsating mass with my finger. The mediastinum had pushed over from the right side and the right side itself had taken on the appearance of an emphysematous chest. At the time of interdicting food by the mouth I placed a gauze pack mechanically supported, over the area where I supposed the duct was leaking, in 48 hours this was removed and the ordinary rubber tube drainage inserted again. Removal of dressing next day showed no more signs of fluid and I ordered a full diet, after the first meal or two the enormous appetite disappeared and my patient passed from a peevish restless state into one of content and well being, eating three full meals each day and expressing himself as being able "to feel himself grow stronger. He gained an average of ten pounds a week having gone from 180 to 140 pounds the day he entered my office. The loss of flesh and strength and the increasing anaemia were much more pronounced after that and I am sure his weight was less than 100 pounds when the duct finally stopped discharging. Realizing the need of further surgical work in the way of collapsing the chest wall I urged him to allow me to operate. Desiring first to return to his home in North Carolina, I acceded to his wishes. Three weeks ago he wrote me he weighed 178 pounds, was able to work and that he believed that he would not need the operation because the chest cavity had about filled in.

Wounds of the chest may be divided into two general classes—penetrating and non-penetrating. I will not touch on the non-penetrating wounds.

The same general principles regarding force, velocity, size, shape, skin conditions etc., as laid down before apply here, except that the thoracic contents do not transmit the energy of projectiles as is the case with the cranial contents, therefore, tissue destruction is defined to the track of the bullet and that which comes on as the result of some secondary lesion. The great immediate danger of this class of wounds is hemorrhage. The next infection and its sequelae, lung tissue is spongy and offers little resistance and does not transmit energy at all, hence it is impossible to have the explosive effect, so that when there is no hemorrhage and no infection, wounds of the lung show brilliant results. Wounds of the lung show different symptoms according to the amount of damage done and the lo-

cation of the injury. The general symptoms are shock, pain dyspnoea, pneumothorax, hoemoptysis, intra pleural hemorrhage cough and asymmetric chest action.

Shock may be present from the mere injury to the thoracic wall. Pain is usually due to irritation or injury of intercostal nerves or a traumatic pleuritis.

Dyspnoea if present may be due solely to concussion of thoracic cavity, if it occurs later it is symptomatic of internal pressure.

Cough unless accompanied by hemoptysis is of no significance. This shows lung bleeding and a rupture into the air passage.

Hemorrhage is the bug bear of chest injuries and is the cause of most of the immediate deaths, slow inter pleural bleeding may cause a fatal ending several days later. Chest hemorrhage may be classed as parietal and visceral, parietal coming from either an intercostal or a mammary artery and may be of the concealed type, in fact is one of the commoner complications of chest wounds—over exertion after injury being the prime causative factor. The general course of hemothorax is toward recovery, absorption rapidly taking place,, however, large clots or a beginning suppurative pleurtis may call for surgical interference. Complete rest and immobilization of the sides are indicated. Visceral hemorrhages are hard to control, owing first to their location and second the danger of collapse during the opening of the chest cavity, however, if the hemorrhage has been severe enough to cause pressure collapse I think the thoracic cavity can be invaded without much danger. Empyema is one of the most dangerous and most common complications of penetrating wound of the chest. It results either from primary infection by bullet or foreign body, or secondarily from operative procedures or infected blood clots. The treatment is early evacuation.

Early detection and evacuation of empyema will cure absolutely a large percentage of the cases and prevent very often a further resort to a scheder or an Estlander. Do not forget that a clean, uncomplicated, penetrating wound that a sepsis—masterly inactivity and an occlusive dressing will bring you more brilliant results than any other procedure.

DISCUSSION

DR. J. H. STOLPER, KREBS, was the first speaker on the above paper. He advocated probing for the bullet, under aseptic conditions, saying that there was little danger of bad results.

DR. U. L. RUSSELL, OKLAHOMA CITY.

In gun-shot wound injury to the brain, we often try to control hemorrhage of brain with gauze. It was demonstrated some years ago that it took only five minutes to control venous hemorrhage, what necessity is there.

then, of leaving the gauze there for twelve or thirty-six hours? Five minutes will control the venous bleeding.

In regard to wounds of the chest. I believe a large per cent will recover if left alone; the bullet passes through and lodges on the other side. In a large per cent of cases you will have to aspirate, but it should not be done too early. Wait until the hemorrhage ceases and the wound heals over and then you will have to aspirate generally where the hemorrhage has been. In a case of gun-shot wound of chest, if the patient does not die within six hours he will generally recover.

DR. W. M. HUBBARD, OKLAHOMA CITY.

I was called on to testify in a case in the County Court as to the direction of a bullet.

The person had been shot between fifth and sixth interspace. I don't know exactly where the bullet entered but it entered at inter-space and came out at inter-space. The bullet wound was larger in the back than in the front. It was contended that the bullet entered from the front and it was on that point that my opinion was desired. So I will ask you, in a gun-shot wound of the chest, the bullet going in at inter-space and coming out at inter-space, would the point of entry be larger or the point of exit.

DR. VIRGIL BERRY, WETUMKA.

My opinion is that the point of entry and of exit can be determined by the condition of the skin, etc., the skin and flesh at the point of entry will be indented somewhat.

In reference to aspirating gun-shot wounds, I wish to say that I never do this. I provide for drainage at first. I was called to see a man and had to open a wound in back and front. I dissected part of the rib and cleaned out the wound thoroughly with water and then I put in a soft rubber drainage tube surrounded by one layer of gauze. I left it several days and the patient came out all right. Usually where no dirty fingers have touched the wound it will come out all right without the use of any aspirator. I have never found it necessary to evacuate the wound unless it has been infected by some one, the patient or some one else. If you have a clean wound it will always heal, in my opinion, without the use of the aspirator.

DR. MILLINGTON SMITH, OKLAHOMA CITY.

It seems to me that there is more differences of opinion concerning the treatment of gun-shot wounds of the chest than of the head. We take it for granted that gun-shot wound is nearer aseptic than any other that we have to do with. The bullet wound is one of the least infective we can get.

I do not believe in porbing into the chest or anywhere else for the bullet from the simple fact that you will probably do just what you are trying to guard against. Understand me, if clothing is carried into the wound, the case is different and the wound is not then so clean as it should be, and not so clean as in the case of a wound of the face. Clean up the wound; remove any clothing you may see at the outer edge of the wound with steel forceps, but do not touch it with hands. Close wound aseptically. With all surgical technique I may get infection where I would not have had it if wound had been let alone. What is the exudate? It is nature's effort to take care of the wound.

I saw a case where a woman had shot herself through the left nipple.

She got up and got well. Afterwards she came under my care for hemorrhoidal trouble and an operation was necessary. I found her chest filled with fluid. I operated for that and she got well. I do not believe in probing for bullet wound in chest. I believe statistics are against it.

DR. L. H. HUFFMAN, HOBART.

One point I think we should put special stress on is the question of empyema. Empyema is a common result in an ordinary wound of the chest. It may be a result of a deposit of material in the pleural sac. The proper method is to dissect and put in dressing.

DR. CLAUD THOMPSON, MUSKOGEE.

I have had quite an experience with gunshot wounds, but I never had a case of empyema. I agree with Dr. Smith that the least you do for them is the best. If a wounded person was brought in here now for me to treat I would clean the outside of the wound and let it alone. I know the best results come that way.

DR. B———, ———.

I have had a large practice in gunshot wounds for the past twenty-one years. I heartily endorse the proposition, "Let it alone!" I think the dressing should be left as loose as possible over the wound. I think a moist dressing should be used, and we should be sure that no foreign element enters the dressing.

Only a few months ago I was called to see a fellow who had been shot through the thigh. He had been treated with iodoform gauze. Infection had begun when I was called in and the fellow died. I believe if a moist dressing had been used and the wound dressed loosely that nature would have thrown off the infection and he would have recovered. Allow a wound as ventilation possible. As far as probing is concerned, I think very few surgeons probe for a bullet now a days.

(Stenographer failed to get the name of this speaker.)

DR. MYERS, CLOSING.

The reason for my inserting iodoform gauze into the head was that the wound had been probed twice before I reached it.

In reference to question asked by Dr. Hubbard, would say that the point of exit is always larger than the point of entry. The modern bullet produces a slight oblique opening at point of entry; the exit is larger.

Dr. Berry does not approve aspirating. In this case referred to I had the viscera to contend with. It was full of fluid. My needle would go through and not get anything, and then again would get something. I could not understand it. I wrote to Dr. A.L. Belsh of Oklahoma City and he answered me and set me right.

As for probing, I do not believe in it, but I did do it this time.

As to the control of visceral hemorrhage: It is hard to control. Some authorities advise filling with ice cold water, but I think in a case of that seriousness it would in all probability be fatal.

The main point discussed has been the matter of interference with gunshot wounds. But in these cases I had to do with there was nothing else to do.

HERNIA

BY DR. G. A. BOYLE, ENID

Read before the Oklahoma State Medical Association at Sulphur, May 13, '08.

Hernia may be defined as the protrusion of the viscus from its natural cavity through normal or abnormal openings in the surrounding structures or containing walls, as hernia cerebri, hernia pulmonum, etc. It is derived from a Greek word meaning a spout. When used alone or unqualified, the term, hernia means the protrusion of an abdominal viscus through the parietes, and this is known by the popular term "rupture."

This paper will be confined to a discussion of the various forms of abdominal hernias. This is a subject that has been so thoroughly discussed in the various text books on surgery that it would seem almost useless to discuss it further; and, I assure you, I shall not advance any new ideas or wonderful procedures. But a condition which is as common as hernia, is certainly one which demands the attention and careful consideration of every practitioner of medicine. According to Malgaigne, one out of every 13 males and one out of every 52 females, are afflicted with some kind of rupture, that is, about one in every 20 individuals. It will thus be seen that it occurs more frequently among males than females, the proportion just given being 4 to 1. Some authors give it 6 to 1, some 7 to 1 and some 8 to 1. This greater frequency in the male is doubtless largely due to occupation. Hernial protrusions appear most frequently at the anterior abdominal wall and are named after the locality in which they occur, as inguinal, femoral, ventral, obturator, sciatic, diaphragmatic, lumbar, perineal, vaginal, etc. Inguinal hernia occurs most frequently, femoral next and finally umbilical. The other varieties occur much less frequently, and, in fact, are seldom seen by the ordinary physician, unless happens to practice in a large centre of population and does a large amount of hospital practice.

Hernia occurs with greater frequency on the right side than on the left. This is said to be due to the lower position of the root attachment of the mesentery on that side, and to the pressure of the liver above. Something may be due also to the more frequent use and stronger muscles of the right arm and leg. In general all hernias are divided into two classes, congenital and acquired. A congenital hernia is one in which the abdominal contents push their way into the unobliterated processus vaginalis. All hernias occurring subsequently to birth are called acquired. The parts constituting a hernia are, first, the sac, and, second, the contents. The sac consists of the peritoneum continuous with the peritoneum of the abdominal cavity. The coverings of the sac vary with the abdominal variety of hernia, and are as a rule fascial with the exception of the outer covering of skin.

Any viscus of the abdomen may be found within the hernial sac, except the pancreas. As a rule, however, hernias con-

tain either bowel or omentum, or, as is most frequently the case, both bowel and omentum. The small intestine is most frequently found in a hernial sac. The vermiform appendix and Meckel's diverticulum ("Littre's hernia") or an appendix epiploicae is occasionally found in the hernial sac. When the sac contains intestine alone it is called an *Enterocoele*. Richter's hernia is one in which only the convex surface of a knuckle of intestine is in the sac, the mesenteric attachments remaining in the abdominal cavity.

When the sac contains omentum only it is called an *Epiplocele*; and when both omentum and intestine are in the sac, it is called an *Enteroeipiplocele*. In children omentum is rarely found in the sac.

The causes of hernia in general are pre-disposing and exciting. Among the predisposing causes may be mentioned:

(1). Age. As a general rule hernia occurs most frequently during the most active period of life, between 15 and 50.

(2). Sex. As already mentioned, males are much more prone to hernia than females, on account of the occupations and greater activity of the males.

(3). Conformation of abdominal walls and heredity. The bulging of the median line and site of oblique muscles are said to favor hernia by Malgaigne. Macready estimates that 25 per cent of hernia patients give an ancestral history.

(4). Abnormal length of the mesentery.

(5). Ptosis of the abdominal organs, or Glenard's disease.

Exciting causes in general are, (1) Occupation, as lifting heavy weights and work performed in the stooping position. I have known of several cases from shouldering sacks of grain. Also among young men in jumping. (2) Pregnancy and parturition. Umbilical hernia most apt to be developed during parturition. (3) Increase of bulk of abdominal viscera from deposits of fat in the omentum or neoplasms. (4) Coughing, crying in infants, straining at stool or during micturition, tight lacing and ascites.

Clinically, hernias may be divided into reducible, irreducible, inflamed, incarcerated or obstructed and strangulated.

It is the clinical classification that most interests us as surgeons.

A reducible hernia, as its name implies, is one in which the contents of the sac can be returned into the abdomen. It may be reduced spontaneously when the reclining position is assumed, or it may require taxis. This is the most common class of hernia, clinically speaking.

The symptoms of hernia are so plain in most cases as to prevent any errors in diagnosis, and yet some cases of buboncele or partial direct inguinal hernia, also femoral hernia, may be readily mistaken. I have seen a very prominent surgeon cut down on a supposed hernia, and find a suppurating, tubercular, inguinal gland; and I have known of surgeons cutting down on a supposed suppurating gland to find a hernia instead. In a recent hernia the first symptom is usually pain—this in 90 per cent of cases. The pain is often sharp, accompanied by a sense of something giving way. Usually it is a dull, dragging pain, which is later accompanied by a feeling of fullness, which is

more marked on standing or straining and disappears, usually, on reclining. The objective symptoms depend upon the size of the hernia and the nature of its contents. In both small and large hernias a distinct impulse is felt on coughing, and, if inguinal, it may then descend into the scrotum or the labium.

In an enterocele there is usually a gurgling felt or heard when it descends and also upon reduction, and it is also tympanic. In an epiplocele the feeling is dull, flat and irregular, and does not give so much impulse on coughing. The treatment of reducible hernia, no matter what kind of hernia it is anatomically, embraces palliative, mechanical measures for retaining the contents of the sac within the abdominal cavity, and operative measures for the radical cure. Palliative treatment consists in the wearing of suitably fitted and adjusted trusses. The truss should always be applied with patient in the reclining posture. In infants and very young children it should be worn both night and day; and, unless the hernia is a very large one, a cure may usually be expected. In adults the truss is generally removed on going to bed, as it very seldom effects a cure except in rare cases of very small, recent hernias.

In infants the truss should be worn at least a year after apparent cure. After puberty cures by trusses are exceptional. If a truss fails to retain the hernia, especially in large hernias, we must either resort to a radical operation or order a suitable suspensory or sling. In large scrotal hernias, in the middle aged or elderly persons, when the ring will admit 4 or 5 fingers, the suspensory is the only resource. The radical operation should be advised and performed, when allowed by parents, in reducible hernia in children in most cases complicated by hydrocele; in cases in which, for any reason, mechanical appliances cannot be successfully used; in cases of children of 4 or 5 years of age, in which mechanic treatment has failed after two years of trial; and in rare cases of femoral hernia occurring in children. Umbilical hernia in children seldom fails to be cured if a suitable truss is worn.

In adults the radical operation should be advised, if otherwise healthy, in all cases of 20 years of age or over, and in all cases of femoral hernia unless some contrary indication exists. A truss is seldom necessary after operation for radical cure of hernia. An irreducible hernia is one in which the contents cannot be returned to the abdominal cavity. A portion of the contents may be reducible and the remainder irreducible, and the irreducibility may be temporary or permanent. There may be neither inflammation, strangulation, nor interference with blood supply; though an irreducible hernia may be complicated with any of these.

Predisposing causes of irreducible hernia are, first, age. This condition is seldom seen in children, largely on account of omentum in the sac, and hence of adhesions, and in cases in which the peritoneal covering is ruptured and the intestine adheres to the fascia of the sac. Second, sex and variety of hernia. Females are more subject to femoral hernia, and femoral hernia is irreducible about ten times more often than inguinal, so that about 15 per cent of femoral hernias are said to become irreducible at one time or another, and hence females may be

said to have irreducible hernia more frequently than males. Umbilical hernia is also more frequently irreducible than inguinal. Neglect is another predisposing cause, such as the wearing of ill fitting trusses, or no trusses, engaging in heavy labor, etc.

The exciting causes of irreducibility are contraction of the tissues about the neck of the sac, thickening and contraction of the sac, often from wearing trusses or injuries. Increase of the bulk of the contents of the sac by deposits of fat in the omentum, also by enlargement of mesenteric glands from tuberculosis, etc., adhesions within the sac, especially in epiplocele. Also contraction of the abdominal cavity in cases of enormously large hernias. Often portions of colon are found in irreducible hernias especially in umbilical hernias. The main symptom is the irreducibility, followed by pain, and usually swelling, and often strangulation. Constipation is usually present and often followed by complete obstruction and strangulation. The latter symptoms render the prognosis a grave one in most cases of irreducible hernia.

The treatment consists of rest in bed with the application of cold compresses, or the ice bag may be applied with a flannel cloth intervening, also gentle taxis may be tried for a few minutes every hour or so. When these measures fail after a reasonable time, we must resort to either herniotomy or the radical cure operation, except in very large hernias or very old patients. Care must be exercised not to reduce the hernia enmasse, that is, the sac and its contents being forced into the abdominal cavity. In the latter case an abdominal section might be necessary, in fact would almost certainly be necessary to save the patient. I want to state here that taxis should always be gentle, and seldom employed for more than five minutes at each attempt; and it should seldom, if ever, be employed in a case of undoubted strangulation.

Inflamed hernia is one in which inflammation attacks the hernial sac or its contents, or both sac and contents. Omentum is most liable to inflammation.

Inflammation occurs most commonly in femoral hernia, next in umbilical and least frequently in inguinal hernia. The causes of inflamed hernia are external injury; acute strangulation and extension of inflammation from enteritis. The symptoms are redness of the overlying skin, increase in size of hernial tumor, edema, pain, tenderness and in some cases increased tension, due to the presence of fluid in the sac.

The treatment includes rest in bed, frequent purgation and either cold or hot applications to the inflamed parts. Cold should be tried first. If it relieves continue it, if not, hot applications should be tried. If these measures fail exploratory incision may become necessary. Incarcerated or obstructed hernia is one in which the passage of the contents of the bowel is inhibited or obstructed from within. This is most common in irreducible hernia and is usually due to constipation and the presence of hardened feces. It occurs most often in umbilical, owing to the presence of the large intestine, also in large, inguinal hernia containing cecum or sigmoid flexure. It may occur in reducible hernia. The symptoms are constipation, coated tongue, etc., and often obscure. May be mistaken for strangulation, only it

develops gradually. The hernia increases in size and some pain and swelling and a "doughy" feeling. Constipation becomes complete with vomiting, fetid breath, etc., but not stercoraceous vomiting. Prognosis usually favorable except in the aged. Greatest danger is from strangulation. The treatment is that of obstinate constipation, except that cathartics should not be given until copious enemas and high colonic flushings have been used and the lower bowel thus cleaned out. Kneading and gentle taxis are useful if no inflammation exists. If these measures fail, then herniotomy is our only recourse with, of course, efforts to effect radical cure when possible.

A strangulated hernia is an irreducible hernia in which the loop of intestine is so constricted as to prevent the passage of its fecal contents and also to interfere with its blood circulation. A strangulated omental hernia or epiplocele is rare. All hernias containing intestine are liable to strangulation, due to more or less compression made on the part of the bowel lodged in the mouth of the sac, by the comparatively unyielding external tissues. When this occurs to the extent of interfering with the return circulation alone, the arteries continuing to convey blood, venous engorgement ensues. This is followed by infiltration of the bowel walls as well as by the exudation of serum into the sac. The bowel walls become thickened, and the pressure is thereby increased. Interference with the function of the intestine, resulting from disturbances of circulation, gives rise to development of gas within the lumen of the intestine, thus the pressure is still further increased. Gangrene may follow at varying intervals, depending upon the amount of pressure caused by the constriction. The strangulation, it will thus be seen, is usually directly due to the combined effects of elastic constriction on the neck of the sac and to fecal occlusion. Inflammation or engorgement of the contents of the sac, or adhesions between the sac and its contents, often lead to strangulation in irreducible hernia. Strangulation occurs more frequently in femoral than in inguinal hernia.

The most common symptoms are pain, vomiting, absolute constipation, prostration and finally collapse. Pain is usually griping and colicky in character, and when pain ceases it is often a sign that gangrene has set in. Constipation is not absolute at first, but soon becomes so, after that portion of bowel below the strangulation has been emptied. Vomiting is persistent, very copious, turning green and later stercoraceous in character. The prostration varies with age, etc., but is rarely absent. The face looks pinched, cheeks sunken and *facies abdominalis* is seen. Tongue is dry and coated, resembling typhoid condition. Collapse supervenes and is recognized by cold perspiration, cold, clammy extremities, shallow and rapid breathing, rapid, weak and thready pulse, etc. There may be slight fever, but often the temperature is subnormal towards the last. Tremors, convulsive movements, cramps delirium and coma end the scene. The symptoms locally are irreducibility, increase in size of hernial tumor, lessening or loss of impulse, fluctuation in the sac and absence of gurgling sounds. Increase in tension is generally present, due to fluid in the sac. Fluctuation is felt if there is much fluid present. There may be no fluid in the sac. The diag-

nosis of strangulated hernia is usually not difficult. The irreducibility, obstruction, pain, vomiting, etc., as just given, make a very plain picture.

But there are some cases very difficult of diagnosis, as in "Richter's hernia" or partial enterocele, "Littre's hernia" or strangulation of Meckel's diverticulum or a strangulation of the vermiform appendix.

Treatment. The evident dangers from strangulation hernia are such as to demand prompt operative interference.

In indubitable cases the question of taxis should seldom be entertained because inflammation or gangrene may be present, also on account of adhesions there is great danger of reduction en masse; there is danger of forcing septic contents into the abdominal cavity; the patient's condition may be such that taxis will greatly endanger his life; and there is also danger of lacerating or rupturing the intestinal wall.

The preparation of the patient is necessarily hurried, as the element of time is of importance. Under a general anaesthetic, after the parts have been washed, scrubbed and made as thoroughly aseptic as possible, a free incision is made just below the constricting portion of the sac. But little attention is paid to the various layers or coats of hernia, and the dissection is continued until the sac is reached, and it is generally known by its bluish color. The sac is always to be opened so that its contents may be carefully examined. If the bowel is found to be black or gangrenous it should be immediately resected and an end-to-end enterorrhaphy should be made. If the bowel is found to have good circulation it should be returned into the abdominal cavity, after carefully examining for any constricting bands near the neck of the sac.

I should have stated that the ring or constricting bands are to be divided with a herniotomy knife or probe pointed bistoury, using the finger within the ring as a guide or doctor. In returning the intestine the surgeon should carry his finger well up into the abdominal cavity to see that the intestine has been completely returned.

The sac is now cut off and sewed up and dropped back into the abdominal cavity, or it may be puckered up by a sort of purse string catgut suture and used as a plug or dam in closing up the ring. In most cases where the patient's condition will admit, we should try to effect a radical cure by so closing our wound as to obliterate the opening or canal through which the hernia protruded.

In cases in which the patient's condition is such that we dare not take the time for resection of a gangrenous bowel, we may open it in situ and make an artificial anus, which can be dealt with subsequently if the patient survives. Or the gangrenous portion may be cut off and the cut end stitched in the wound, making an artificial anus. In the after treatment we combat shock with hot saline solutions, hot bottles to extremities, strychnine hypodermically, etc. Light diet is given and bowels moved on third or fourth day, preferably by enema at first, followed by salines. From the foregoing it will readily be seen that the great danger in any form or variety of hernia

is that it is liable at any time to become irreducible, inflamed, obstructed or strangulated. Knowing these dangers as we do, it is undoubtedly our duty as surgeons and physicians to explain these dangers to our patients, and to urge upon them the radical operation. It is the family physician, nine times out of ten, who first sees a case of hernia. It is also he who first sees a case of strangulated hernia. While it is his duty to try fitting a proper truss, at the same time he should fully explain the dangers of any and every rupture, and should at least strongly advise an operation for its radical cure.

The particular radical operation performed will depend upon the kind or variety of hernia, and the choice of the operator. Most surgeons now do a Bassini operation or some modification of it, especially if an inguinal hernia. The essential steps in all operations for radical cure of inguinal hernias are, 1st. Exposure of the sac and its isolation to the level of the internal ring; 2nd. Isolation of the cord; 3rd. Opening the sac to be sure it is empty; 4th. Removal of the sac and its ligation or suturing; 5th. Permanent approximation of the conjoined tendon of the internal and oblique and transversalis to Poupart's ligament, either with the cord in its normal position, or by displacement of the cord to prevent recurrence, by thus obliterating the inguinal canal, and, 6th, by closure of the wound.

The most important factor of all is *strict asepsis*. Under absolute strict aseptic technique, almost any operation will be a success, while sepsis will often spoil the results of the finest operation.

Radical operation for femoral hernia of the same general steps, except that we have no spermatic cord to be dealt with. After ligation of the sac in femoral hernia, lymphatic glands are removed and sac returned into the abdominal cavity, as in inguinal hernia. The next and most important step of the operation consists in attaching Poupart's ligament to the point of origin of the pectineus muscle and the periosteum of the horizontal ramus of the pubes. Poupart's ligament is thus made to describe a backward curve, following the recession of the bone at this point. In this manner the femoral canal or space is obliterated. The final steps and closure of the wound are similar to those of inguinal hernia. The main object or great desideratum in all radical cure operations is to obliterate the canal through which the hernia descended, and to so coapt the aponeuroses and fascias as to render the weakened portion of the abdominal wall so strong that there will not be a recurrence of the hernia.

My paper being now longer than it was my intention to make it when I began to write, I shall say little concerning umbilical and the rarer forms of hernia. The general rules and steps I have just mentioned will apply to operations for umbilical hernia, except that we have different coverings and tissues to deal with and often we find great difficulty in preventing a recurrence of the hernia.

In preparing this paper I have been largely guided by the article on Hernia in Fowler's Surgery, as well as by more than twenty years of my own personal experience.

THE PHYSICIAN'S WIFE

BY MRS. FLOYD E. WARTERFIELD, HOLDENVILLE, OKLA.

Read at the annual meeting of the Women's Auxiliary in Sulphur, May, 1908.

The subject upon which I have elected to write, deals with a life and character that in many respects stands apart from all other lives and characters; similar to others that we are all women, and different in that the duties and responsibilities of this particular class of women are, in many respects different from all others.

The life of the physician's wife has a due amount of hopes, anticipations, and disappointments, as do the lives of all women, with an additional allowance of experiences, not always small, incident to her peculiar station in life.

There is much more to be said of the life of the physician's wife than I am able to say, and much that I shall say may appear as commonplace matter, but I can not do more than to portray this life as I see it, from observations and the knowledge derived from actual experience. My father dying when I was an infant, and the subsequent remarriage of my mother to a physician, brought me under this influence before I was old enough to know or appreciate any other, therefore, while not actually the daughter of a physician, I am one by adoption, and the environments surrounding the life and work of the physician so impressed and influenced me as to early determine my future course in life.

Before I was old enough to appreciate that a doctor was only a man, and subject to all the natural laws governing other men, I thought them possessed of some super-human power, and that they were next to God in all things. I thought there was nothing impossible of accomplishment by the doctor. Somehow I had a love and reverence for the name, physician, and was ever ready to do anything that was in my power for their comfort and pleasure. I know that when papa would come home after a long country drive, tired, hungry, and sleepy I was ever ready to assist my dear patient mother in making him comfortable and happy, not simply because he was dear to me as a parent, but because he belonged to that great class of men, whom I so much revered, the physicians—and he had greater cares and responsibilities than other men. Long before I was old enough to appreciate the full significance of being a wife I would say to my mother, and to my play-mates, that some day I was going to be a doctor's wife—I thought to be the wife of so great and good a man, as I felt each and every doctor must certainly be, would be the greatest thing in the world, except just being the doctor himself. Those early notions are yet dear to me, and I have often wished, since the years of maturity, that all doctors were as great and good as my childish fancies pictured them to be. But I have, of course, long since learned that the doctor is only a

man, born of woman; some of them good and capable; some of them bad and incapable, yes, even wicked and immoral, and unscrupulous; but I still have faith, and believe that to be a competent, capable physician is great, and that it is the noblest vocation a man can choose for his life's work, although the responsibilities resting upon him are greater than those resting on the members of any other calling—the clergy not excepted. There are many trials and difficulties to be met; obstacles to be surmounted; criticisms, misrepresentations, wilful and intentional, disappointments and failures with which to cope; but these, if he is faithful and true, only helps to develop the noble character that so clearly distinguishes him from other men. They make him stronger and better, more capable as a physician, more trusting as a friend and advisor, and more patient, kind and loving as a husband and father.

But since the doctor is only a man, he appreciates the Scriptural admonition, "That it is not good for a man to live alone," the same as do other men, and he decides to take unto himself an help-mate, to share his joys and sorrows, and lend that aid which only the sympathetic councils of a true wife, can give. Fortunate, indeed is he if perchance he gets a wife whose thoughts and impulses are in sympathy with his chosen vocation.

So the young physician filled with hope and expectation of his future success, perhaps a little conceited as most men,—finds his affinity, woos and wins her; they are married and he takes her away from home and mother, and together they set sail on life's tempestuous sea for better or for worse, but they are content as they lift anchor; the wife supremely happy in love's tender dream, and indeed it would be a blissful state if there were never to be any rude awakenings, and we should feel thankful that the guiding hand of Providence shields and protects her, and allows her to awake gradually to the full purport of life and its responsibilities, for sure as fate, they will confront her, and force themselves as stern realities and not fancies.

They are domiciled in their little cottage, and it is morning; the bright rays of the morning sun as they stream in through crack and crevice flitting and dancing about in seeming glee micks them in their happiness; the gentle breeze as it comes rustling through branch and vine, laden with odors sweet and fragrant, whispers words of comfort and encouragement; and even the birds vie with each other in melody of song, tending to add enchantment to love's happy morning.

They arise; the young doctor to face the grim responsibilities of one of the most exacting callings in life, but he is brave and knows he will succeed.

The young wife opens the book of her domestic life, and beholds the pages white and clean, and through her imagination she can see the pages of this book turned one by one until the final leaf is turned and life is finished just as she has it pictured. But poor girl, she does not know how many pages are to be blotten and covered by a rough, ugly and unwelcome experience,

and it is better that she does not know. In this happy frame of mind, she begins her task of helping the doctor make their fortune and build his fame. He is not much known now, but he is hers, and he's great, and she knows he will succeed; and notwithstanding they are poor now they will be rich before many years, because the doctor is going to make money from the beginning and she is going to take care of it and help him invest it, and as she cannot see obstacles and financial difficulties confronting the doctor she can see no possibility of failure in any direction. But there are several strangers, in the life before her that she has not, as yet, met, and which are to play a part and wield an influence very material; whether she likes them or not she cannot shake them; like Banco's Ghost they will not down. It would be ludicrous, if less serious, and we will accordingly repress the smile that insidiously creeps up and plays over our face as we observe her in the meeting of some of these strangers.

Their little domestic ship is sailing along as smoothly as a bark ever sails, but they are going to strike a wave and while it will not we trust, upset the bark, it will inflict a puncture sufficiently large to let out some of the gas expectation, and the space will be taken by the more solid substance of salt water of uncertainty. They are poor and she knew it before they started out, but that was nothing, she would have all she wanted, and owing to the thoughtfulness of her hero, in leaving his saving with her, and her own economy she had succeeded for a time very nicely, but there comes a time when the doctor fails (for lack of it) to leave her money with which to meet the requirements, and she gently, but hesitatingly, approached him and asks him for some money with which to purchase some needed articles—she just knows it is an oversight in him due perhaps to business that he did not furnish it to her without the asking,—but then he stammers, blushes and finally says to her, well dear, you will just have to wait until some of my customers pay their bills, she realizes that the doctor has troubles. Do you recognize this stranger? I think you do, she does. It's plain old Doctor Bill, and after this he continues to vexingly and perplexingly bob up in her life at each turn of the way. He uncouthly insinuates himself into the family circle, and on many subsequent occasions he is the subject of very animated and spirited conversations. Let her life be long or short, so long as she is the wife of a doctor she will have to contend with him, and cannot cut his acquaintance. She soon learns to expect any kind of treatment at his hands; he plays the meanest and most unexpected tricks at the most inopportune time. It may be that he brings a bushel of frozen turnips, a basket of over-ripe eggs, a load of rotten pumpkins, or a jug of burned molasses, when he promised he would pay money, and she had her heart set on a certain dress pattern that she really needed very much; but he is a good customer, and really has the money, but the doctor can make out on what he cannot sell to others, and

his wife can just do without her new Easter bonnet; besides the doctor is easy because he is afraid not to be.

About the time she begins to adjust herself and recover somewhat from the rude first meeting with Mr. Doctor Bill she unconsciously begins to form the acquaintances of two other companions who are to travel along with her during her earthly pilgrimage, and as they are to figure so prominently in her life, we will observe her during the introductory period of their acquaintance.

At home, the doctor's wife must be a combination; she must be wife, housekeeper, cook, milkmaid, nurse and hostess, all in one—yes even more than this—she must keep up with the calls that may be turned in for the doctor during his absence, and since he is becoming better known his practice is increasing so he comes in late for his meals and is in a hurry to be off again; this worries her, but she says nothing about it, and goes on as before; but bye and bye he does not come when he is expected; the meal is getting cold, and vainly she tries to keep it wholesome for him, but it is growing late and still he has not come, and she sets it aside and feels worried because she has made a special effort to have a good supper. He is busy or he would have come she knows, and she closes up the house and tries to sing to drive away the darkness, but the shy little mouse as it steals from its hiding makes a noise loud enough to attract her attention; the window panes rattle more than usual; the wind makes a wierd sound as it rustles the leaves, and hideous monsters show their faces where only pictures should be, and while she knows no one else is there she feels the influence of a strange presence, and as she turns to go into the bed room, perhaps, she is overcome by the presence of her new visitor, for she is face to face with Sister Lonliness, and as she is about to break into sobs she hears a well known voice, calling cheerily, "Are you there?" Oh, how delighted she is, and with a bound she unbolts and throws open wide the door, and tells he of her heart, of the meeting of the unwelcomed guest who has just departed, but not to stay away for she will return many, many times, and in the days and nights that come and go she learns to lessen her attentions to this visitor, and resignedly watches and waits for the coming of the doctor. And ere long she has unconsciously adopted the motto which all doctors' wives do adopt, not from choice but from necessity—Watch and Wait—and they of all wives know the full meaning of the motto.

During all this time the close companion of Sister Lonliness has been preparing to step in to trouble her, and when he does he soon becomes the most vexing of all her acquaintances. He plays pranks with her that cause her to almost, at times, lose her hold on those amiable virtues of patience and gentleness; and this is how she first meets him. Mrs. Butterfly is going to entertain Miss May-Be, and it's going to be the swellest evening party of the season; she is invited and certainly must attend. She is all delight, so carried away is she by the prospects. She

has informed the doctor of her intentions, and has cautioned him to be sure and be home promptly at six o'clock for his supper, after which they will have barely time to dress for the occasion. She executes her part of the program to the letter, and is ready for the doctor's coming at the appointed time; he does not put in an appearance, and as the hour of seven rolls around and he still has not come, she begins to walk the floor, fret, grow impatient and look cross; but she cannot go alone, as that would be improper, and she continues to await his coming until the hour of the gathering has arrived, when she gives up in despair. She is so provoked, that when the doctor does come home she will not be comforted by his story of Mr. Sick-at-the-wrong-time's dreadful condition. She is all put out and goes to bed disconsolate, for she has had her first meeting Mr. Social Disappointment and doesn't like him a little bit, and never will, though she is destined during her voyage in life as a doctor's wife, to meet him many times.

The days and years go by and everything changes, including the doctor and his wife; their fortunes, their minds and thoughts. The doctor's work has grown and broadened so much that he now has but little time to spend at home with his wife; he is almost too busy to give the good-bye kiss or to speak an encouraging word that means so much to the lonely wife while she is about the many duties of the home, and at times, perhaps, she feels that she must yield to her feelings and give away to a flood of tears before she can go further.

Indeed, doctors are very busy men, and they seem to forget that their wives long for that love and companionship they once made unmistakably plain. They plead so little time, but when they were sweethearts he could find time to escort her wherever she might choose to go, and could spend considerable time with her no matter how sick the patient or how urgent the call, but now the wife, if she would go, must go alone or with some of her neighbor friends, perhaps stumble along in the dark, any way she can get there the best she can and back home again, as someone in the country or in the farther part of town has more urgent claims on the doctor and his time than she has. If the wife is unfortunate enough to be a physical coward she suffers tortures when she gets back home while she examines every nook and corner for fear there is a horrid burglar hiding there, and all the time she is making the search she is praying that she will not find one because she does not know whether she would be able to run or whether she would just die, but she does not find the object of her search and retires but is just too scared to sleep until the doctor returns and it does seem at times as if he had decided never to come again, so slowly drags the time. But it is not now in the doctor's line of business to attend social functions or even to attend church, he must attend to business for his profession claims all his time and attention.

We, their wives, and I think the world at large, could not get along without the doctor; they are so capable and deserving;

they are so astute in locating the cause of bodily pain and disease, but can they look deep down into our hearts and discover the cause for that longing and hungry feeling for the love and attention they once gave us, and which now in some way seems to have been forgotten? Yes, they could if they were not so busy. I feel sure that they do not mean to be indifferent to us; they just seem to think it understood that they are the same old sweethearts, and think it unnecessary to stop and tell us so occasionally. They develop into more matter of fact persons as they grow older and get busier. We are not so circumstanced that we may do the amount of good in the world that our husbands can do, but we can accompany them oft-times on their errands of love and mercy and the kind word spoken and the cheery smile given may sink deep into the heart of the sad and despondent, and while we may be likened, as the shadow unto the substance, we are glad to realize that the shadows have their mission, and while we have our own peculiar troubles as the wives of the doctors we have many pleasures and joys of which others are deprived. But will say:

*The doctor's life is not all a dream,
We know what the life of the doctor means;
We sympathize with him in all his woes,
So far as our experience goes.
We know something of a wife and mother's joys
And how to help our husbands and guide our girls
and boys.
When the doctor was made God saw that he
Needed an help-mate such as we.
So in a good-bye strain let me say,
May Heaven bless the doctor and his wife on their way.*

PERSONAL

Dr. G. A. Boyle of Enid has just returned from a month's outing in Oregon and California.

Dr. W. H. McKenzie of Enid spent the month of August in the Chicago G. A. clinics.

Dr. H. K. Wilson of Enid is visiting in Arizona with his wife and daughter.

Dr. John Ransom Hamill and daughter, of Guthrie, are both very sick with typhoid fever.

I should like to propose that by common consent we drop the word "inflammation." It has done some good, but has caused much confusion. Its various stages and its confounding definitions make of the word a cloudy notion, and it seems unserviceable. Let us extricate it. Let us substitute the simple, clear terms of infection and its concomitant tissue-unrest for inflammation.—Bernays.

EXAMINATION OF THE PATIENT

CHAIRMAN'S ADDRESS BEFORE THE OKLAHOMA CENTRAL
MEDICAL ASSOCIATION, APRIL, 1908.

BY DR. J. H. BARNES, ENID.

This is one part of our medical work that is more abused than any other one thing in our profession. The use of nostrums and advertising with long articles in our daily newspapers and throwing grape shot into our brother doctor, none of these are to compare with the evil of careless examination of our patient. The neglect of our work often puts us in bad repute and injures our standing with the laity. The people soon lose confidence not only in the family doctor but in the profession, and think the whole profession and the system of medicine is a graft.

We owe a close and careful and an intelligent examination to every patient we examine and see, however mild the present attack may be. Then we owe it to ourselves and to the great profession that we are so proud of and the laity classes with the hod carrier. As long as we make superficial examinations with very little thought and care, the people are going to continue to call us "Doc," and "Mr." but when we get down to business, examine and study our case to make a conclusive diagnosis instead of calling it malaria, billiousness, or catarrh. Then it is when the people will respect us and recognize us as an honorable profession, and then too the people will listen to our advice on hygiene and sanitation and preventive medicine. There will be no trouble to get our legislative bodies to pass medical laws to protect the people and the doctor.

Why should our patient not go to some quack who promises him a cure? When we have seen him time and again and he grows from better to worse each week. The quack knows enough at least to go through the form of an examination, he strips him of his clothes and puts him on the table, the patient is better all ready. We have treated his stomach, his catarrh, his liver, his anemia, his kidneys and his heart, and yet have never analyzed his urine, don't know where his liver is, have made no physical examination of his chest and could hardly say whether he had a heart at all or not.

Now gentlemen this is not right either to the patient or to our profession, leaving ourselves out of the question, while we are a very small part of the profession we as individuals make the practice of medicine what it is to the minds of the public. One careless doctor may undo what a dozen could build up in a way of public confidence.

We have men who claim to be specialists on certain lines making the very worst kind of blunders just from carelessness and the neglect to have a system of examination and to follow that form. We have men in the eye work who will treat an eye

for a mild case of conjunctivitis for months without refracting the case. I remember myself of making a diagnosis of a case of glaucoma without taking the tention of the eye. Not being certain I sent it to a specialist and he made a diagnosis of iritis when the pupil was widely dilated. He did not take the tention either, for it was almost as hard as marble. Simple mistakes like this are made every day in all lines of practice.

It is no wonder we have springing up all around us a new profession, a new system of medicine as some of them term it, as the Osteopath, the Chiropractors, the Christian Scientist, etc.

When we get down to business and hard work and study our patient to find out just what organ is not doing its duty and eliminate the cause, then we will stand head and shoulders above reproach and there will be only one school of medicine. It will include all the fundamentals of the Healing Art and there will be no place for any other school.

There are three things that are essential in order to be able to make a good examination. First: Preliminary education. Second: Medical Education. Third: Application.

The matter of education is now being considered by most of our medical schools. But they are timid about it for fear they will not get students sufficient to support the institution. What a pity our schools are not supported as our public schools.

No doubt many of you read in the *Journal* of two months ago the old reserrected medical laws of France. This law contained many good qualities that would be a credit to our new state. One of them was that a student must be well grounded in Logic before he could take up a five year course in medicine. This is what we most emphatically need to-day. Those old educators recognized the fact that a man must know how to think quick and well before he even took up the study of medicine.

You take the four learned professions: The Teacher, The Ministry, The Law, and Medicine, and there are none that draw ones storehouse of knowledge so much as that of medicine and that requires a more profound thinker.

The teacher has hours to prepare his subject before it is presented to his class. The minister has a whole week to compose his sermon and then, too, he is allowed to repeat his sermon when he changes his location. The lawyer has as long as he chooses to render his opinion on a legal subject. You go to an attorney and ask his opinion on a legal subject or on a point of law and he will tell you that he will look up the statutes on the matter. But when a sick man comes into your office for advice he wants to know right there and then what the trouble is, and how long he going to be sick and what he must do to get well. No time to go to your library. You must make an examination and from this a diagnosis, prognosis and treatment before the patient leaves the office.

There is no profession or trade that demands so much from its members. So it behooves us to see that our respective medical students are well founded in logic. I believe that doctors should

be graduates of universities and good ones at that. Some of our schools are poorly equipped and like some of our medical schools will admit students that do not come up to the standard and hence put poorly qualified men to study medicine.

A doctor should be able to take the lead morally, socially and intellectually in the community where he resides. To do this he is compelled to be well prepared in a good school before he begins the study of medicine.

Medical education is one of the greatest problems of the twentieth century. All over the world the standard is being raised rapidly. Every Journal you pick up you see some school has required another year's work in the preparatory school before entering their school. They are increasing the length of the year to eight and nine months and adding on an extra year till now some of schools have five years of nine months each for graduation.

The anatomical, the physical and the chemical laboratories are much better than they were a few years ago. The equipment is so constructed that the student can do more. So the whole system is for better and more thorough examinations. The graduate of today is able to make an analysis of all the secretions and excretions of the body. But think of yourself and then answer the question, will he do it after he has been in practice a few years.

The progress of natural and physical sciences has surprised the world during the last fifty years. It has revolutionized the whole system of civilization. But the science of living beings and their manifestations have progressed as rapidly and have influenced the material, the social and the intellectual conditions of mankind as much as the sciences of inanimate matter and its energies. The happiness of the human race is beyond comparison, by the advancement of medicine to lessen human suffering and to prevent the spread of disease. It has made physical undertakings possible, such as the settlement of Cuba, and the Philippines and the digging of the Panama Canal. It has increased the happiness of our homes by preventing our loved ones from the terrible agony of diphtheria and small pox; and the ravages of malaria and yellow fever. Tuberculosis can now be handled in such a way that a great many recover.

While all this has been done by careful examinations being made, there is still much more to do than has ever been discovered. The ordinary student now can see that there are great fields before him for progress and development. For one example the opsonic index, when it is worked out so that it can be used by the doctor outside of the laboratory. It is going to prove one of the greatest epochs in medicine. You remember when Koch discovered the tubercular germ that no doctor could find the germ who was not constantly working in the laboratory. But when he discovered his staining process, so that the staining differentiated it from all other germs, then the doctor could diag-

nosis his own case of tuberculosis. So it will be with the opsonic index when we can work it out at the bed side.

There are many other problems to work out if only the student has a system of examination of every patient so that he will not miss a single symptom. Now what is necessary for us to do, as progressive men, as doctors who have the interests of the people at heart and the advancement of medicine uppermost in our minds, is first, to create an atmosphere for more thorough work and better diagnosis and more specific treatment; and second: see that our schools give the proper opportunity for scientific research work.

I know of no better way to start this work than in our medical societies. This is the germ that keeps the profession alive, and as our societies are so will be our future doctors. This will help to make the atmosphere around our own medical school of Oklahoma, that is connected with a good university that is able to do its part to make good doctors. We want to help this institution. Speak a good word for it. If you think the standard is not high enough write a word to the president. Help them to get better students and more of them. Many of our schools now require that a certain part of the work be taken in the university itself where the student will have all the equipment he needs and all of the material at hand to enable him to get the greatest amount of work in the least possible time. They also have the advantage of being under trained and professional teachers who are paid a salary to teach.

There are twenty-six of our medical schools now that require two years of work above the high school, and fifty-one that require one year. So you see that we who graduated a few years ago will have to make the very best of what we did get in order to be able to compete with the next generation of doctors.

The application of the principles of medicine learned in school and by experience and observation is the Art of Medicine. Upon this depends the doctor's success. His education helps him to think deeply and to observe closely, and when he makes an examination he leaves nothing undone. He will get the full history of the case with all the family tendencies, then he will make a careful and close physical and pathological examination.

The history of the case is one that we overlook, not because we do not think of it, but for the reason we do not think of its importance for future reference. The history should be written down so we may refer to it later as we study the case. I will only speak of these matters briefly for we know what to do and how to make a good examination. But how many of us make a physical examination of a child without even taking off its winter wraps and how many more without taking off its clothes? We are too modest to strip a man to examine his liver or stomach or his spine. But the Osteopath knows well how to undress his patient to replace a supposed dislocated vertebra. The Chiropractor who never attended a medical school can find

a protruding spine of one of the vertebra and can by a thrust replace it.

Gentlemen, if we only carried out our instructions to go thoroughly into every case and examine those organs that we know are apt to become diseased, we would soon carry this country for good, sound medicine. You know the great study is today, not how to cure disease, but how to prevent it, and if we expect to add anything to this system we must get busy and learn to make a good diagnosis from our examinations of every organ of the body, as to its action and its function. To sum up.

To make an examination we must have learned Logic in the High School and the University.

Then we must have learned the principles of the science of medicine in a good, well organized medical school that is an intricate part of a good university. The department should be endowed and the teachers professional instructors.

The doctor must know the Art of Medicine and how to apply his knowledge to the wants and needs of his patient.

When all this is done there will be no new system of medicine, it will be the progress of the advancement of science, with inventions and discoveries from research work. There will be one great school and that for the preservation and development of the physical body.

*COUNCILLORS AND COUNTIES COMPOSING
THEIR RESPECTIVE DISTRICTS*

First District, G. A. Wall, Oklahoma City; Canadian, Okla-

Second District, A. L. Blesh, Oklahoma City; Grant, Kay, Osage, Noble, Pawnee, Kingfisher, Logan and Payne.

Third District, E. S. Lain, Oklahoma City; Roger Mills; Custer, Dewey, Blaine, Beckham, Washita and Caddo.

Fourth District, E. B. Mitchell, Anadarko; Greer, Kiowa, Jackson, Comanche, Tillman, Stephens and Jefferson.

Fifth District, E. D. Ebright, Carmen; Cimarron, Texas, Beaver, Harper, Woodward, Alfalfa, Ellis, Woods, Major and Garfield.

Sixth District, F. R. Sutton, Bartlesville; Washington, Nowata, Ottawa, Rogers, Mayes, Delaware, Tulsa and Craig.

Seventh District, Claude A. Thompson, Muskogee; Creek, Wagoner, Cherokee, Adair, Okmulgee, Okfuskee, Muskogee and McIntosh.

Eighth District, LeRoy Long, McAlester; Sequoyah, LeFlore, Haskell, Hughes, Pittsburg and Latimer.

Ninth District, H. P. Wilson, Wynnewood; McClain, Garvin, Carter, Love, Murray, Pontotoc, Johnston and Marshall.

Tenth District, E. N. Wright, Olney; Coal, Aotka, Bryan, Pushmataha, Choctaw and McCurtain.

COUNTY SOCIETIES

The Okmulgee County Medical Society will meet in Henryetta Monday, October 5th, at 10 a. m.

FORENOON PROGRAM

Business meeting.

Paper—"Some Disorders of Menstruation," Dr. Mitchner.

Discussion, Dr. Milroy.

PUBLIC AFTERNOON MEETING

Address—Dr. Tilly, of Muskogee.

Paper—"The Doctor and the People," Dr. Culp.

Discussion—Dr. Shankle.

"Congestive Forms of Malaria," Dr. Perkins.

Discussion—Dr. Newell.

Report of Case—Dr. Alexander.

Discussion—Dr. Bercaw.

Dr. Berry of Wetumpka is expected to attend and address the meeting.

You are earnestly requested to attend.

The Garfield County Medical Society met in Enid September 9, 1908. There was a good attendance, both out of the city and in town.

PROGRAM

"The Doctor"—Dr. L. W. Cotton.

"Rheumatism"—Dr. A. S. Mackey.

Dr. Cotton's paper brought out a lively discussion on medical ethics. The Society meets regularly every month.

The Enid Round Table will meet again September 25th to take up the year's post graduate course. They meet weekly. There is always a good program which is being prepared now. We meet in the doctors' offices, and have a lunch and good social time at the close of the program.

CARTER COUNTY MEDICAL SOCIETY.

Carter County Medical Society held a very interesting meeting on August 11th, and the secretary sent us the program, which consisted of twelve papers, the titles of which indicate that they were very interesting. Lack of space precludes the printing of the program.

WANTED—To correspond with a physician wanting a good location. Investigation will prove this a decided opportunity. Address, A. B. C., care of this Journal.

WANTED—Assistantship, partnership or salaried position by physician. age 28, single; no bad habits; over six years' experience; best of reference as to character and ability. Address X. Y. Z., care of Journal.

PROPERTY FOR SALE—To any one wanting a paying practice in a fine farming community and nice town of 300 on railroad, 40 miles from Oklahoma City, may obtain same by buying my property at low value. I wish to retire. All letters containing stamp will be answered. C. S. BARGER, President First State Bank, Wayne, Okla.

PROCEEDINGS OF THE COUNCIL OF THE
OKLAHOMA STATE MEDICAL ASSOCIATION

Oklahoma City, Okla., August 17, 1908.

The Council met, pursuant to the call of the Chairman, in the Threadgill Hotel, at 3 p. m., with the following members present: Dr. G. A. Wall, of the first district; Dr. A. L. Blesh, of the second district; Dr. E. S. Lain, of the third district; Dr. E. B. Mitchell, of the fourth district; Dr. LeRoy Long, of the eighth district; Dr. H. P. Wilson, of the ninth district; Dr. B. J. Vance, President, and Dr. E. O. Barker, Secretary.

Meeting called to order by the President.

Motion that the action of the Secretary-Treasurer and Editor of the Journal in setting aside 60 cents out of the dues of each member, paid to the State Association for the year 1908, as a subscription to the Journal of the Oklahoma State Medical Association for the last seven months of the current year, be approved, and that he be authorized to set aside not less than \$1.00 for the year 1909, as a subscription to the Journal, out of the dues paid by each member for the year 1909, was carried by a unanimous vote.

After some considerable discussion regarding the advertising policy of the Journal, the following motion was made, seconded and carried: That the advertising policy of the Journal be not to discriminate against any legitimate manufacturing houses, such as Parke Davis & Co., John Wyeth & Bros., Sharp & Dohme, Abbott Alkaloidal Company, Wm. R. Warner & Co., H. K. Mulford Co., and any other reputable manufacturing firm, so long as the preparations advertised are ethical, and no false claims for them are made in the advertisements offered.

After considerable discussion regarding organization, and an agreement that the matter of organization must be pushed, the Council adjourned.

B. J. VANCE, President.

E. O. BARKER, Secretary.

RESOLUTION

Whereas, The medical profession of Washington County, Oklahoma, and members of the Washington County Medical Society necessarily feel a great interest in securing such legislation as will be to our interest and of that of the public generally, and feel that our representatives should, in justice to us as a part of their constituency, be willing to conform to our requests;

And Whereas, In the last session of our State Legislature, convened at Guthrie, strong means were brought to bear to legalize a certain class of individuals, known as Chiro-practors, to diagnose and treat diseases of the human body, and to allow them to be known and designated as Doctors, placed on an equality with the regular medical profession; and

Whereas, Owing to the limited time they spend in study, in order to be admitted to practice their work, they could not be

otherwise than densely ignorant of the anatomy and physiology of the human system, which two fundamental branches would bar their ability to make proper diagnoses of pathological conditions, and they therefore become imposters and a menace to the well being and public safety of our commonwealth; and

Whereas, We, as regular physicians, are required to attend at least four (4) years at a regular medical college conferring the degree of M. D., and to take regular courses in dissecting and pathology under competent tutorship, as well as all the other branches pertaining to the study of medicine, and are further required to pass satisfactory examinations before a board of examiners appointed by the Governor, and to spend our money to the amount of \$1500 to \$2500, besides our time for four years, in order that we may be qualified and fitted for our chosen profession; and

Whereas, We deem it degrading to our profession and an imposition on the public, to have a creedism or class of individuals to bob up without any pretense of being familiar with the physical makeup of a human body, and spending not more than five weeks or months in so familiarizing themselves with it, and claim to be able to treat disease by any method which they might adopt; and

Whereas, It appears that at the last session of our State Legislature (at which time the Chiro-practors made an unsuccessful attempt to be recognized by law as healers of the sick) the Representative of Washington County offered an amendment to the Medical Bill, that was then pending, admitting said Chiro-practors to practice in this State, without examination or complying with the provisions of said Medical Bill, as all others had to do, who desired to follow the profession of healing the sick, or in any way attempting, proposing or professing to administer to them as physicians.

Therefore, Be It Resolved, That we, the members of the medical profession of Washington County, and the Washington County Medical Society, vigorously protest against the legalizing of that class of individuals known as Chiropractors to diagnose and treat diseases, and consider it an insult to our noble profession to have them launched upon the public and labeled doctors.

Be It Further Resolved, That a copy of these resolutions be presented to each candidate, regardless of politics, for member of the next Legislature from this County and Senatorial District, and that his opinion be obtained, and that we hereby bind ourselves not to support any candidate whose influence would not be used in harmony with the above resolution.

Be It Also Resolved, That a copy of these resolutions be sent to the Official Medical Journal of the State of Oklahoma for publication.

O. S. SOMERVILLE, M. D.

W. E. RAMMEL, M. D.

JAMES POLLARD, M. D.

G. F. WOODRING, M. D.,

FRED C. SHUTS, M. D., Secretary.

President.

Senate Bill Number 188.

AN ACT

Creating a State Board of Health, for the organization thereof, and defining the powers and duties; to define the powers and duties of the Superintendent of the State Board of Health and of the Superintendents of Public Health in counties and cities; to authorize municipalities to pass sanitary laws, to provide how vacancies in said Boards of Health can be filled; to provide for the establishment of quarantine and the abating of nuisance; to define the duties of physicians or other persons with reference to reporting the existence or non-existence of virulent epidemic contagious disease; to prescribe such aid as the Governor can render such Board; to provide how notices or orders of said Boards can be served; to provide penalties for violation of this Act and of the lawful orders, rules and regulations of said Boards; to authorize the Attorney General of the State and the County Attorney of each County to represent said Boards in any suit against it, or institute and prosecute such proceedings as the Boards may deem advisable in carrying out the provisions of this Act; and to provide a right of action for persons aggrieved by any act, rule or regulation of said Boards; and providing for a Bacteriological and Chemical Laboratory under the supervision of said Board.

BE IT ENACTED BY THE PEOPLE OF THE STATE OF OKLAHOMA:

Section 1. A State Board of Health, to be in charge of one commissioner, to be known as the State Commissioner of Health, is hereby created; said Commissioner shall be appointed by the Governor (with term co-terminous with that of the Governor) for a period of four years. Said Commissioner shall have supervision of all matters relating to public health, and immediately after his appointment he shall take and subscribe to the oath of office prescribed by the Constitution, or such oath as may be otherwise prescribed by law. He shall procure a seal of office and shall have power to administer oaths to any person, when necessary in the discharge of his duty.

Sec. 2. The State Commissioner of Health shall have power to make and enforce any and all needful rules and regulations for the prevention and cure, and to prevent the spread of any contagious, infectious or malarial diseases among persons. To establish quarantine and isolate any persons affected with contagious and infectious diseases. To remove or cause to be removed any dead, decaying or putrid body, or any decayed, putrid or other substances that may endanger the health of persons or domestic animals. To condemn or cause to be destroyed any impure or diseased article of food that may be offered for sale. To superintend the several boards of health in the counties, cities, villages, towns and townships. To establish rules and regulations for the keeping and reporting of all vital statistics, births, deaths, marriages and divorces, as prescribed by this Act.

Sec. 3. It shall be the duty of the State Board of Health, under the provisions of this Act, to quarantine against outside territory known to be infected with contagious or infectious diseases, to take charge of districts or localities in the State infected with any contagious disease and enforce such rules and prescribe such measures as it may deem necessary to pre-

vent the spread of same, or to suppress it; to take proceedings to have a nuisance, calculated to affect injuriously the health of the public or any community, abated; to take cognizance of the interest of health and life among the citizens of the State, make sanitary investigations and inquiries relative to the cause of disease, and especially of epidemics, the source of mortality and the effects of localities, employments, conditions of schools, prisons, public institutions, mines, railroads and street cars and all buildings and places of public resort, and to recommend, to prescribe and enforce such measures of sanitation for them as it may be deemed advisable; to advise the State and all local governments in all hygienic matters; to act in conjunction with city, town and township boards of health; and to make a report in writing to the Governor twenty days preceding each regular and special session of the Legislature, upon the sanitary conditions, prospect and needs of the State, setting forth the action of the board, all its expenditures since the last preceding report, and such other matters as it may deem proper for the promotion of health or the prevention of disease, which said report shall be laid before the Legislature by the Governor at its ensuing term.

Sec. 4. The State Commissioner of Health shall receive a salary of eighteen hundred dollars per annum, to be paid monthly, as other State officers, and he shall be allowed, for records, printing and traveling expenses actually and necessarily expended in the performance of his official duties, or those acting under his direction, upon the approval of the Governor, which shall be paid monthly upon sworn itemized statements.

Sec. 5. The Board of Health shall establish and maintain a chemical and bacteriological laboratory for the examination of public water supplies, such examination shall be made at least every three months, the effluent of sewerage, purification work and for the diagnosis of diphtheria, typhoid fever, hydrophobia, and all contagious and infectious diseases, and such other diseases as they deem necessary, and for the examination of food suspected to be the cause of disease. That the said chemical and bacteriological laboratory as herein provided shall be established and maintained at the University of the State of Oklahoma in connection with the regular department of chemistry and department of bacteriology. The said Board of Health shall have the control and supervision under such rules and regulations as it may adopt, over the work required to be performed under the provisions of this Act, and such rules and regulations as it may prescribe to be done by said laboratory. Such work shall be done by and under the direction of the professor of the department of chemistry and the professor of the department of bacteriology of said university.

Sec. 6. In every county in the State there shall be appointed by the Board of County Commissioners, a County Superintendent of Public Health, who shall be a regular practicing physician in good standing and of good moral character and a resident of the county for which he is appointed, and he shall hold his office for a term of two years and until his successor is appointed and qualified, unless sooner removed for cause. Said County Superintendent of Public Health shall have power to abolish nuisances that are dangerous to public health, to isolate persons affected with dangerous and contagious diseases, and to do such other things with the approval of the State Board of Health as may be deemed necessary for the preservation of the public health within said County. Provided, that appointment as County Superintendent of Health shall be made from all the recognized

schools of medicine, as near as may be, according to the relative per cent of practitioners of the various schools in the State.

Sec. 7. Each township in such county of the State the Board of Directors shall be and are hereby constituted a Town Board of Health. The Board of Directors, when acting as Township Board of Health, shall be under the supervision of the County Superintendent of Public Health, and shall be governed by such rules and regulations as may be prescribed by the State Board of Health in relation to the public health; and they shall have the power, and it is hereby made their duty, to enforce such rules and regulations pertaining to quarantine or contagious and infectious disease under the direction of the County Superintendent of Health.

Sec. 8. That in every incorporated town in each county of the State, that the Town Board of Directors shall constitute a Board of Health and shall perform all the duties herein required of the Township Board of Directors, and shall be under the supervision of the State Board of Health and the County Superintendent of Public Health.

Sec. 9. In cities of the first class in each county in this State, the mayor and common council shall constitute a Board of Health; said mayor and council shall have the power, and are hereby authorized, to appoint a city superintendent of public health, who shall be a regularly licensed and practicing physician in good standing and of good moral character, and resident of said city. The said mayor and council shall have the power, and it is hereby made their duty, to enforce all of the rules and regulations in regard to the public health therein, and to establish and maintain quarantine under the supervision of the City Superintendent of Public Health as prescribed by the rules and regulations of the said Board of Health, to all contagious and infectious diseases.

Sec. 10. It shall be the duty of all practicing physicians in each county to make a report to the County Superintendent of Public Health for said county upon forms prescribed and furnished by the State Board of Health, of all cases of contagious and infectious diseases. Such report shall be made by said physicians as soon as the disease is discovered, and upon failure on the part of the physician to so report said disease as herein provided, he shall be deemed guilty of misdemeanor, and upon conviction thereof shall be fined in a sum not less than ten dollars and not more than twenty-five dollars. Upon receiving the said report it shall be the duty of the County Superintendent, if such contagious and infectious diseases exists in a township or town, to issue an order of quarantine to the Board of Health, as herein created, in such township or town, in such form as may be stipulated by the rules and regulations of the State Board of Health, requiring such township or town Board of Health to serve a true copy of such order of quarantine upon such persons having such contagious or infectious disease, and upon the person having charge of such person or persons, in the same manner as criminal process is served, and thereupon such person having such contagious or infectious diseases shall be, by said township or town board of health, isolated and confined, and all other persons exposed to said infectious and contagious disease shall, at the discretion of said township or town board of health, be also isolated and confined, and any person having such disease or exposed to such infectious or contagious disease, who shall leave the place where he has been isolated by any township or town board of health, without the consent of said board of health, shall be deemed guilty of misdemeanor and shall be fined not less than twenty-

five dollars and not to exceed one hundred dollars. Any person confined or isolated by order of a township or town board of health shall not be released or relieved of such isolation or quarantine without an order from the County Superintendent of Public Health, made to the township or town board of health. Whenever a physician discovers a case of infectious disease he shall have the power, and it is hereby made his duty, to place into effect a temporary quarantine under such rules and regulations as prescribed by the State Board of Health, and until the proper authority can order a quarantine, and the penalty herein provided for the violation of a township or town quarantine shall be enforced against the violation of a quarantine order made by such physician.

Sec. 11. It shall be the duty of any practicing physician in cities of the first class, in counties of this State, to make a report to the City Superintendent of Public Health, upon forms prescribed and furnished by the State Board of Health, of all cases of contagious or infectious diseases, as soon as discovered by him or coming to his knowledge. Any failure upon the part of said physician to report said disease as herein provided, shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be fined in the sum of not less than twenty-five dollars nor more than one hundred dollars. Upon the receiving of said report it shall be the duty of the City Superintendent of Public Health to issue an order of quarantine to the mayor of said city, on such form as may be stipulated by the rules and regulations of the State Board of Health, requiring such mayor to serve a true copy of said order of quarantine upon such person or persons in the same manner as criminal processes are served. Thereupon, said person having such contagious or infectious disease shall be, by said mayor and council composing such board of health, isolated and confined, and all other persons exposed to such contagious disease shall, at the discretion of the board of health, be isolated and confined, and any person having such disease or exposed to such contagious or infectious disease, where he has been isolated by said board of health, any officer or any person acting under any order of the said city board of health, without the consent of said board, he shall be deemed guilty of misdemeanor, and upon conviction thereof, shall be fined not less than twenty-five dollars nor more than one hundred dollars. Any person confined or isolated by order of said city board of health, shall not be released or relieved of such isolation or quarantine without an order from the City Superintendent of Public Health, made to the City Board of Health. It shall be the duty of said City Superintendent of Public Health to make a full report from time to time to the State Board of Health as to the cases of contagious and infectious diseases existing within said city at such times and under such rules and regulations that said State Board of Health may require. Whenever a physician in a city of the first class discovers a case of contagious or infectious disease, he shall have the power, and it is hereby made his duty, to place into effect a temporary quarantine under such rules and regulations as prescribed by the State Board of Health, and until the proper authorities can order a quarantine, and the penalties herein provided for the violation of a quarantine shall be in force against the violation of quarantine orders made by such physician.

Sec. 12. Orders made and issued by the County Superintendent of Public Health, or the township or town board of health, may be served by the sheriff of the county, or any of his deputies, or by the constable of such township or any of their deputies, or by any person resident of said county,

authorized to do so by the president, or in his absence, by any member of the township board of directors. Orders made and issued by the County Superintendent of Public Health, or the town board of public health, or the township board of public health, may be served by the sheriff of the county, or any of his deputies, or by the town marshal or any peace officer of the town, or any person authorized so to do by the president of the board of directors, or in his absence, any member of the said board of directors of said town. Orders made and issued by the city superintendent of public health, or the mayor and council as the city board of health, may be served by the city marshal, or the chief of police of said city, or any policeman or peace officer of said city, or any constable of said city, or any person deputized by the mayor, or in his absence, the president of the council, and any such officer herein authorized to serve such orders as herein provided, or any person deputized to serve such orders as herein provided, shall have all the powers of a peace officer in the performance of his duties.

Sec. 13. The County Superintendent of Public Health shall be paid a sum not to exceed five dollars per day for the time actually served, to be fixed by the Board of County Commissioners, and payable quarterly by the Board of County Commissioners out of the salary fund of said county. He shall be paid his actual and necessary expense contracted in the discharge of his duties, and all bills of expense shall be filed with the county clerk under oath and allowed by the Board of County Commissioners as other bills are allowed by them. Provided, that should an emergency exist on account of a dangerous epidemic, the County Superintendent of Health and the Board of County Commissioners may make such provisions for the isolation and care for the sick as may be required, and to prevent the spreading of such dangerous epidemic under such rules and regulations as adopted by the State Board of Health. The County Superintendent of Public Health shall make a quarterly report to the State Board of Health, and such report shall contain such recommendations in regard to the public health in his county, as he may deem advisable.

Sec. 14. Any city of the first class, or town, or village may pass sanitary legislation and enforce the collection and registration of births, health and mortuary statistics, but the same shall be subject to and not inconsistent with the rules and regulations of the State Board of Health touching the health interests in the county in which such city, town or village is situated.

Sec. 15. It is the duty of the County Superintendent of Public Health to enforce the rules and regulations of the State Board of Health in the prevention of the spread of all infectious, contagious or epidemic diseases in his county, to investigate and examine into the causes thereof, and to recommend rules and regulations to remedy the same, and to do such other things in carrying out the purpose and object of its creation as the State Board of Health may lawfully require of him.

Sec. 16. Upon receiving information that there is any case of infectious or contagious disease in this State, the Superintendent of the State Board of Health, if, upon investigation, he deems it necessary, or some competent physician or health officer ordered by him, shall proceed immediately to said place and investigate the reported case and take such legal steps as he may deem necessary to protect the public health of the State of such locality. It is his duty to impose and enforce all proper restriction upon the ingress and egress of such infected localities and to control the population

of such infected locality as to the disposition thereof, as shall protect it and at the same time prevent the spreading of the infection. But this shall not prevent passengers from being transferred under guard from one railroad to another at junctions, and all expense incurred by said Superintendent of said State Board of Health or other physician directed by him to act in his place, as herein provided, in the performance of his duties as provided in this section, shall be paid by the State.

Sec. 17. The Superintendent of the State Board of Health, and the County Superintendent of Public Health in each county, shall have the right, and it shall be made their duty to call upon the sheriff of the county, or any constable of the county, or the chief of police or marshal of any municipalities, where any contagious or infectious disease is discovered or located, to assist in the isolation and quarantine of the person having such contagious or infectious disease, and all persons exposed to said disease and liable to spread said disease, and it shall be the duty of any such officer to assist such health officer and to arrest any and all persons, with or without warrants, who violate any of the rules prescribed by the State Board of Health in reference to quarantine regulations.

Sec. 18. The Governor may, if he deem it wise and proper to do so, furnish the State Board of Health with requisite means to enforce its quarantine regulations, including such armed forces from National Guards or Militia of the State as he may, in his judgment, believe necessary; provided, however, that they shall at all times be under the direction and command of the Governor.

Sec. 19. The City Superintendent of Public Health in cities of the first class shall receive a reasonable compensation for his services, as the mayor and council may, by ordinance, allow.

Sec. 20. If a prisoner in a jail, house of correction, or workhouse, has a disease which, in the opinion of any County or City Superintendent of Public Health, or such other physician as they or either of them may consult, is dangerous to the safety and health of the other prisoners or of the inhabitants of the town or city, such County or City Superintendent of Public Health shall, in writing, direct his removal to a hospital or such other place of safety, there to be provided for and securely kept until it is further ordered. If he recovers from the disease he shall be returned to his former place of confinement. If the person so removed has been committed by order of the court or under judicial process, the order for his removal, or copy thereof, attested by the health officer ordering such removal, shall be returned by him, with the doings therein, into the court from which the process of commitment was issued.

Sec. 21. If any Board of Health or any County or City Superintendent of Public Health in this State shall order the owner or occupant of any private premises, at his own expense to remove any nuisance, source of filth or cause of sickness found there, within twenty-four hours or within such other time as it shall be considered reasonable, and such owner or occupant refuses and neglects to comply with such order, he shall be fined therefor not more than twenty-five dollars for every day he knowingly violates such order. Such order shall be in writing, and may be served personally on the owner or occupant, or agent if he is known, and within the State. If the premises are unoccupied and the residence of the owner or agent is unknown, or is without the State, the Board of County or City Super-

intendent of Public Health may order the notice to be served by posting it on the premises and by advertising in one or more newspapers.

Sec. 22. If any person is convicted on an indictment or information for a common nuisance to the public, the court may order the nuisance to be removed or destroyed at the expense of the defendant, under the direction of the State, City, Township or Town Board of Health.

Sec. 23. Whoever wilfully and maliciously deposits excrements or decaying matter, or in any manner corrupts any spring or reservoir or other source of water used for domestic purposes, or destroys or injures any pipe conductor of such water, or other property pertaining to an aqueduct, or aids or abets in such trespass, shall be punished by a fine of not less than twenty-five dollars nor more than one hundred dollars, or by imprisonment for not more than thirty days in jail, or both such fine and imprisonment.

Sec. 24. It shall be the duty of all physicians practicing in each county in this State to, within thirty days, report to the County Superintendent of Public Health, all births and deaths, and the disease with which said person died and his age or sex, which said report shall be verified by affidavit of the said physician, and for each and every such report shall receive as compensation therefor the sum of ten cents, to be paid from the contingent fund of such county. It shall be the duty of the clerk of the District Court to report to the State Board of Health the record of all divorces had in said court, upon the close of the term of which said divorce was granted. The said County Superintendent of Public Health shall be required to transmit the report of the births and deaths reported to him by physicians to the State Board of Health as often as said Board may require.

Sec. 25. Any person who shall knowingly violate any of the provisions of this act or any lawful rule or regulation of the State Board of Health, or any rule or regulation of any inferior Board of Health, herein authorized to be made, shall be guilty of a misdemeanor, and on conviction, except as otherwise provided in this Act, shall be punished by a fine of not less than ten dollars nor more than fifty dollars, or imprisonment in the county jail not more than thirty days, or by both such fine and imprisonment.

Sec. 25. It shall be the duty of the County Attorney of each county to defend said Board of Health in any suit against it and to prosecute any person who shall violate the provisions of this Act, and he shall file and prosecute appropriate judicial proceedings in the name of the State on request of the State Commissioner of Health.

Sec. 27. No railroad or other corporation company shall receive, for shipment to any point within the State or any point without the State, the body of a deceased person, without there being exhibited to the agent or other employe having charge of the station of said railroad or other transportation company a certificate of death from the attending physician, stating the name of the person and the place wherein such person died, the date and cause of his death, and such general information as may be prescribed by the rules and regulations of the State Board of Health. Any person having charge of the interment of a deceased person who shall violate any of the provisions of this section shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined in a sum of not less than twenty-five dollars nor more than one hundred dollars, or by confinement in the county jail for not less than thirty days nor more than ninety days.

Sec. 28. Any physician who makes or causes to be made a false certificate of death, or makes any false statements in any certificate of death made by him, on the body of a deceased person, shall be deemed guilty of a misdemeanor, and shall, upon conviction thereof, be punished by fine in the sum of one hundred dollars and ninety days in jail.

Sec. 28. Any agent or employe or officer of any railroad or transportation company violating any of the provisions of this Act, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined in a sum of not less than twenty-five dollars nor more than one hundred dollars, or confined in the county jail for a period of not less than thirty days nor more than ninety days.

Sec. 30. It shall be the duty of the Attorney General of the State, when called upon to do so by the State Board of Health, to prosecute all cases brought under the direction of the said State Board of Health, or to defend the said State Board of Health in all suits or actions brought against said State Board of Health, in any court of the State where the cause of action or complaint arose or grew out of the performance of their official duties.

Sec. 31. For the purpose of carrying out the provisions of this Act and placing the same in force and effect, there is hereby appropriated out of any money now in the possession of, or which shall come into the possession of the State Treasurer, and not otherwise appropriated by law, the sum of seven thousand dollars, or so much thereof as may be necessary for the payment of the salary of the Superintendent and the per diem of the other members of the Board, and the actual and necessary expenses of each of said members of said board as herein authorized, and the expense of maintaining the office of said Superintendent, and purchasing of necessary stationery and supplies. All accounts for salary and expenses of the members of the board, and all other expense accounts, shall be allowed only by the order of the board and upon sworn itemized statements thereof.

Sec. 32. Sections one, two, three, four, five, six, seven, eight, nine and ten, of Chapter Five, of the Session Laws of Oklahoma, of nineteen hundred and three, together with all other Acts and parts of Acts in conflict herewith are hereby repealed.

Sec. 33. Any person who has been aggrieved by any act, rule or regulation of any of said Boards of Health, shall have the right of action to have such issue tried in the District Court of the county in which some member of the board shall reside.

Sec. 34. For the preservation of the public health, peace and safety, an emergency is hereby declared to exist, by reason whereof this Act shall take effect and be in force from and after its passage and approval.

GEO. W. BELLAMY,
President of the Senate.

WM. H. MURRAY,
Speaker of the House of Representatives.

Approved May 11, 1908.

C. N. HASKELL,

Governor of the State of Oklahoma.

A mesenteric cyst may give the same signs as a small ovarian cyst. Mesenteric cysts, although movable, are usually attached to the ascending colon. When the colon is dilated a direct relation can be made out between the gut and the tumor.—American Journal of Surgery.

JOURNAL

OF THE

Oklahoma State Medical Association

VOL. 1

GUTHRIE, OKLAHOMA, OCTOBER, 1908

No. 5

E. O. BARKER, EDITOR-IN-CHIEF.

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Entered at the Postoffice at Guthrie, Oklahoma, as second class mail matter, September 1908.

This is the Journal of the Oklahoma State Medical Association, and every member is entitled to a copy every month; and if any member does not receive his Journal promptly, the matter should be reported to this office.

Communications of all kinds should be addressed to the Editor.

HIGH TIME TO GET TO WORK.

Cool weather is coming on, with its long evenings, and it is time that the county societies should revive from the torpidity of the hot season, and let the people generally know that they are still alive.

It will soon be time for the annual election of officers and delegates to the next annual meeting of the State Association, and the County Societies should be in good working order before the election takes place, in order that the members may know who the earnest workers in the respective societies are, as it is a fatal mistake to elect as officers, or delegates, members who are not earnestly interested in the work of organization; especially is this true as to the Secretary, for upon him devolves largely the success of the society, although the Secretary alone cannot make the society.

It is hoped that the Councillors will get out and see that the societies in their respective districts are brought up to the very highest state of organization, and that they will do it at once, as this is what the Council is elected for, and the State Association will pay the actual expenses of the Council in their work, and the Councillor who will not spend his time as is necessary for the faithful performance of his duties as such, should resign and let his place be filled by someone who will do the work expected of him.

With few exceptions, the Council has done good work, but in a few cases your Secretary has written in vain for information regarding matters in some of the Council districts, and in

a few instances counties are anxious to be organized, but the Councillor will not take any interest in the matter.

We would also suggest to the various Chairmen of Sections that the work of securing material for the program for the next annual meeting of the State Association should not be delayed too long, as last year the material reach the Secretary so late that the program could not be gotten out as soon as it should have been.

To the County Secretaries we will say that upon you depends largely the success of your society, as the average doctor is prone to neglect his society if he is not continually reminded that he should get out to the meetings, so that it is necessary to continually keep at it if the society would be kept up to a good active stage.

Another matter that we wish to call the attention of the profession is the fact that the postal regulations are very strict as to the mailing of second class matter, and in order that we may have no trouble about mailing the Journal, subscriptions must be more promptly paid than formerly was the case, so that it will be necessary for the annual per capita of the members to be paid earlier in the year if each member would receive the Journal without missing some of the numbers.

We had a great deal of trouble in getting the Journal admitted to the second class of mail matter, and we do not want to take any chances of having further trouble in the case, so we will urge that the per capita for 1909 be sent in not later than April 1st, and also remember that the per capita will be \$2.00 after the present year, having been raised from \$1.50 at the last annual meeting of the State Association.

We earnestly insist that County Secretaries send us reports of the various meetings, as the profession over the State is interested in what is going on in this line.

An editorial in the *California State Journal of Medicine* has so many good things about the work of medical organization that we have taken the liberty of extracting from it, as found below.

"Nor are we without benefit ourselves, material and financial benefit from all this work. We have had practical demonstration of what organized effort will do in the matter of fees for insurance examinations. We shall, when we have a solid and thoroughly organized profession, devoting no small portion of its time to showing the people what they should know, see another and greater victory. Decent fees are essential to comfortable living and scientific upkeep. A poorly supported doctor is a dangerous doctor, for he lapses ignorant, no matter how well informed he may have been when he started in. If he has not the income to buy books and subscribe to journals, to attend county and state and national medical society meetings, to travel occasionally and see what others are doing and achieving, he can not give to his patients assistance as good as it ought to be—the patients suffer for their own niggardliness. Let them understand this, and they are cheerful in the payment of their bills. Let them clearly see that they really suffer from the "ten cents a visit" sort of treatment—from the lodge curse—from the "dollar a month" contract doctor, and

these evils will disappear. When a man is sick he wants to know that he is getting the best consideration of his case and that he will get the best up-to-date treatment. If he once understands that on the "ten cents a visit" sort of bargain-day treatment he gets mighty little consideration and the easiest sort of treatment that can be doled out, then he will get on to himself and depart from that which does him little good—or does him good and plenty, whichever way you choose to look at it. Then, too, think of the tremendous value of a strong medical organization protecting its members from blackmail in the guise of malpractice suits. Not one malpractice suit in a thousand is based on a legitimate case of rankly poor, bad medical treatment. They are bred of jealousy, hatred and malice; and somewhere, skulking behind the plaintiff, you will find some hound of a doctor trying to get even for some supposed wrong, or enviously trying to injure a brother practitioner. Get together. Get into your county society and be active therein. Find out what the other fellow really is and you will generally find that he's a whole lot better than you thought. Stand together in your medical organization and work for each other, and you'll soon find that you are really working for your own self and your own betterment, mental and financial."

"What is the use of all this work for medical organization?" Dear man, the uses are so many that one might write books about them. There is, first of all, the duty which you owe yourself and your patients. You have assumed, with the taking upon yourself of professional rank, certain obligation, not the least of which is to give to your patients the best of up-to-date medical knowledge. Can you possibly do this if you are out of touch with what is doing and progressing in medical science? Can you keep in touch with medical progress if you shut yourself up like a clam and pay no attention to what other men are doing and reporting? You are the worst kind of an utter fool if you think you can, and you have no right to be turned loose upon an unsuspecting and confiding public. No man, of himself and alone, can possibly keep up with what is being done, no matter how many journals he takes and tries to read, unless he comes in contact with other men and hears of their successes, mistakes and experiences. Furthermore, you should give of your own store of experience. Wherein you succeed may be just the little particular which the other fellow misses and so does not help his patient as much as he could if he had the knowledge of that one little thing which is yours alone. That is nothing more nor less than your duty. And again, you know that your professional life is a very lonely one. You see only sick people and they all think you are about the smartest thing there is, or they wouldn't have you. And pretty soon you get the same magnificent idea, and then you look down upon the others of your calling whom you do not meet and know, and you think you are a little bit better than they are. But, really, you know, you are not. Go to your county society, help make it what it should be, give of what you have and take from what others give, and you will soon learn to lose some of this enforced self-conceit. You are not the whole thing, as your patients would make you believe, and possibly the man you particularly look down upon may do something a whole lot better than you ever thought of doing it. And more than this, your profession exists to protect the public, often in spite of themselves and their ignorance. Are you doing your duty here? Can you do it unless you help to make your county society the power in the county which is the right and the duty of our profession?"

HOW DO YOU LIKE THIS?

Sec. 24. It shall be the duty of all physicians practicing in each county of this State to, within thirty days, report to the County Superintendent of Public Health, all births and deaths, and the disease with which said person died and his age or sex, which said report shall be verified by affidavit of the said physician, and for each and every report shall receive as compensation therefor the sum of ten cents, to be paid from the contingent fund of said county.

The rules of the Board of Health require the physician to make three copies of the report of each death or birth, two of which are to be sent to the County Health Officer, and one to be kept by the physician. For this work the law allows the doctor the sum of ten cents, and requires him to make an affidavit to each of his reports, for which he will have to pay the notary public 25 cents. Thus it will be necessary for the physician to pay the sum of 15 cents for the privilege of making three copies of the report of each death or birth.

How do you like it, anyway?

BOUQUETS AND BRICKBATS.

NEW OKLAHOMA STATE JOURNAL.

The first issue of the new Journal of the Oklahoma State Medical Association appeared in June. It is printed at Guthrie, and edited by the State Secretary, Dr. E. O. Barker. Dr. Barker has had experience in medical journalism previously, as he was founder and editor of the former Oklahoma Medical News. This journal has since changed hands. The establishment of a state journal for the Association is, in our opinion, the wisest action that could have been taken by that body. In no other way can the state profession have independence utterance and unify its views on questions of state policy. The journal is 6¾x10 inches, magazine size, pages printed in single column. The appearance is very neat. The first issue contains the President's address, two medical papers and the proceedings of the last House of Delegates, together with editorials, the roll of county societies and a list of members of the State Association, numbering 971. The first issue contains a small amount of advertising. We are glad to see that most of it is ethical. However, the wisdom of the insertion of Glyco-Thymoline without any formula is, in our opinion, very questionable, and still more so the full page advertisement of the unapproved remedy—"Pneumo-Phthysine." This last name shows it is intended finally for a popular remedy. We sincerely hope that the wideawake profession of Oklahoma will, through the Journal, heartily support the Council on Pharmacy and Chemistry, and not advocate any remedies not guaranteed by the great national investigating body.—Texas State Journal of Medicine.

Not just right, Doctor, as it was the *Oklahoma Medical Journal* that we established, and finally sold it to Dr. J. R. Phelan, who had established the *Oklahoma Medical News*.

It may be seen that the formula of Glyco-Thymoline is now printed in connection with the advertisement.

So the name "Pneumo-Phthysine" "shows that it is intended to finally become a popular remedy," does it? Well, how about "Chologestine", "Febri-Tone", "Duotonol Tablets," "Trio-tonol Tablets," "Quarotonol Tablets," and "Sextonol Tablets," each tablet labeled "Schering"? And again, how about "Peters Peptic Essence Comp. that *has the remarkable property of arresting vomiting during pregnancy*"?

How about the claims made in the "ad" of Glyco-Heroin (Smith)? We find the following statement: "Glyco-Heroin (Smith) is admittedly the ideal heroin product. It is superior to preparations containing codeine or morphine, in that it is vastly more potent and *does not beget the by-effects common to these drugs.*"

And on referring to the report on Heroin of the Council on Pharmacy, we find the following statement (see page 40 of New and Non-Official Remedies): "*The habit is readily formed and leads to the most deplorable results,*" and "It is said not to produce costiveness (this is not true, according to some observers.)"

Now, who is right?

How many doctors have not been held up for a box of Ergo-Apiol (Smith) and been sorely disappointed in the results, after having read the most extravagant claims for the remedy by the makers thereof?

FAMILY ADDITION.

And now comes the newest of our states—Oklahoma—bearing gifts and olive branches in its hands and presents to the family of state medical organization journals our youngest born. With June is issued Volume 1, Number 1 of the Journal of the Oklahoma State Medical Association. We regret to note that it contains the advertisement of glycothymoline, a preparation which was given two years to set itself right before the Council on Pharmacy and Chemistry—and did not attempt to do so. Such preparations are intended for general public consumption and self-doping, and the medical profession is merely used in the first instance to introduce the stuff and exploit it at the cost of the lay public. If you doubt the truth of this, just go to the nearest drug store and ask to see an original package of the preparation in question. Do not content yourself with merely looking at the label on the sample package which the manufacturer will gladly send you, but consult the label on the original trade package. You will there learn things that will doubtless surprise you; a most extensive list of diseases will there be found, and of course glycothymoline will cure them all. Oklahoma, go back and begin right. Cut out the unholy alliance between our profession and the lies and frauds of the nostrum man. Depend upon the Council on Pharmacy and Chemistry which, please remember, is the only institution in the world to which the medical man can go asking the truth about materia medica preparations, and be sure of getting it. Don't believe anything that any manufacturers tells you, unless the Council says that the manufacturer is telling the truth. There is not

one of them that has not, deliberately or inadvertently (and that is giving them the benefit of the doubt) lied to our profession and misstated either the composition of some of its wares or their active value. You cannot depend upon your own judgment, for you do not know enough to judge; you cannot depend upon the statements of the manufacturers, for they are interested in but one thing—selling goods; and they have all told us—what was not the truth. The transmutation of metals is child's play in comparison with the wonderful changes which the manufacturer can produce in the action of well known drugs and chemicals, merely by means of a lie on the label. Do not let the published-for-profit medical (?) journals fool you into thinking that there is anything back of this movement except a desire to tell the truth—the real, plain, ordinary, simple, garden truth.—California State Journal of Medicine.

The California Journal of Medicine seems to not like the idea of our advertising Glyco-Thymoline, and asks us to get an original package and see what astonishing claims are made for the preparation. We notice that the California Journal carries an "ad" of Liquid Peptonoids, and same statements are made on the original package of it, also. The following is taken from the "ad" in the California Journal:

Liquid Peptonoids provides adequate aliment, useful caloric value and mild stimulation in palatable, permanent, predigested form, ready for use without preparation and of proven practical advantages.

And here is what the Council on Pharmacy and Chemistry has to say about Liquid Peptonoids and others of its class (see page 85, of New and Non-Official Remedies):

"From 700 to 1500 Cc. of the medicinal foods will be required per day. In many cases *the amount of alcohol exhibited would keep the patient in an alcoholic stupor continually.* It should be remembered that the patient is receiving a *starvation diet* when these preparations are given in ordinary doses." And yet the manufacturers of Liquid Peptonoids claim in their "ad" in the *California Journal of Medicine* that "Liquid Peptonoids provides *adequate aliment*, in doses of one-half to one ounce four to six times a day." 90 to 180 Cc. per day, when the Council on Pharmacy and Chemistry says it would take from 700 to 1500 Cc.

Again we ask, who is right?

There are warm old times down in Oklahoma, where the doctors are trying to decide what journal is the real, authentic, genuine organ of the State Medical Society. The new "Journal of the Oklahoma State Medical Society" insists that it is "it," while the "Oklahoma Medical News Journal" is inclined to ignore the youngster and goes serenely on as the one and only official organ. The new journal has gotten pretty mad about it and, after hurling all invectives at the older sheet, winds up by stigmatizing it as "privately owned!" War is now on.—Chicago Clinic.

That the above is false, can be seen by referring to the July issue of the *Journal*.

APPENDICITIS.

In consideration of the importance of appendicitis, and in view of the fact that many of us are not as well posted on the subject as we should be, and that very many of our readers do not read the *Journal of the American Medical Association*, we have reprinted from that *Journal* the paper on appendicitis, read at the last meeting of the American Medical Association by Dr. Robert T. Morris of New York, and in the November issue we will print the discussion of the paper.

We consider this paper, with the discussion, one of the most important additions to the literature on the subject of appendicitis for some time.

THE NEW STATE BOARD OF MEDICAL EXAMINERS.

The new State Board of Medical Examiners consists of the following members: Regulars, W. T. Tilly, Muskogee; A. M. Chambers, Poteau; A. M. Butts, Holdenville, and A. E. Davenport, Oklahoma City; Homeopaths, J. Hensley, Oklahoma City, and D. W. Miller, Blackwell; Eclectic, Frank P. Davis, Enid; Osteopaths, H. C. Montague, Muskogee; alternate, J. A. Price, Guthrie; Physio-Medical, A. R. Lewis, Ryan; I. O. Briggs, Atoka, alternate. Dr. Lewis, being a Regular, declined to serve as a Physio-Medical member, which leaves that place to be filled.

The Board met in Shawnee October 8th and organized by electing Dr. W. T. Tilly, President; Vice President, Dr. H. C. Montague; Secretary, Dr. Frank P. Davis; Treasurer, Dr. D. W. Miller.

The next meeting will be in Muskogee, November 10, 1908.

The Secretary announces that publishers who place the Secretary on their mailing lists will be furnished with the proceedings of the Board as desired.

We would advise all physicians who have received no new certificate since statehood to write to the Secretary of the new Board, asking to be registered according to the provisions of Section 10 of the new medical law, as the time provided for such registration is very short.

GALL.

Below we quote some extracts from a letter received a few days since, which demonstrates that there is no limit to the gall of some people in this old world.

And we hope that the State pride in the hearts of the people of Oklahoma will cause them to confine their help to the different institutions of our own State, which need help just

as badly as does the Wichita Hospital; also that State pride will keep them from sending their friends out of the State for services that can just as well be obtained at home.

Our personal answer to the letter is printed at the bottom of this article.

"Dear Sir and Brother:

"The Ministerial Association of Wichita has suggested raising a Thanksgiving offering of \$25,000 for the permanent endowment of Wichita Hospital. This hospital, under the management of its Board of Women Directors, has done marvelously with the funds at their command.

"We are arranging to have a Union Thanksgiving Service held in your town, at which this work may be presented, and at which an offering may be taken for its permanent endowment. We are not asking for any favors for Wichita, as you can readily perceive, but are appealing to you and your citizens to help enlarge and maintain an institution for the benefit of all of the towns in this section. Please speak to the pastors and the newspaper men of your town, commending this work. We are anticipating your co-operation in making this service and offering a worthy one.

Cordially,

EDGAR WILLIAM ALLEN,
Chairman.

Guthrie, Okla., October 10, 1908.

The Wichita Hospital, Wichita, Kans.

Gentlemen: Your circular letter, stating that your Ministerial Association has suggested raising a Thanksgiving offering of \$25,000 for the permanent endowment of the Wichita Hospital, etc., etc., has been received, and in reply I will say that, for unadulterated gall, it takes the cake. There are a dozen hospitals in Oklahoma that need help just as badly as does the Wichita Hospital, and there is no good reason why we should send our money out of the State, or our patients, either, as we have just as good accommodations, both in the way of hospitals and surgeons, as there are in Wichita, and we predict that your Union Thanksgiving service will be rather frosty in Guthrie, as the Methodist Hospital for the State is located here.

Our advice to you is that you confine your efforts to your own State, as we need our money at home.

Very respectfully yours,

E. O. BARKER.

DRUGS SIMULATING SUGAR IN THE URINE.

Coleman states that the following drugs, when ingested, may cause the urine to reduce Fehling's solution, and respond to some other tests for sugar: Acetanilid; arsenous, salicylic and dilute hydrocyanic and sulphuric acids; alcohol, amyl nitrite, chloral, chloroform, copaiba, glycerin, mercury, morphine, strychnine, turpentine.—The Medical Council.

Original Articles

THE VALUE OF THE X-RAY TO THE SURGEON, ITS USE IN DIAGNOSIS AND TREATMENT, WITH REPORT OF CASES.

(E. S. LAIN, Oklahoma City, Okla.)

You may perceive by referring to the subject of my paper that it is not my intention to give you a full copied history of the X-Ray. Briefly mentioning the experiments of Geissler in the years of 1858-59, by passing an electrical current through vacuum tubes, followed by Hittorf, still later and farther by Professors Leonard and Jackson of King's College, London, in the years 1893-94, in observing the florescence produced by such experiments upon certain objects. This having led to the most honored benefactor, Professor William C. Roentgen, professor of physics in Wurzburg University, Bavaria, to discover the effects which these florescent vacuum tubes had made upon some photographic plates upon his shelf. This led him to place such in direct exposure to this new light, and upon November 8, 1895, to announce his most wonderful discovery, the X-Ray:

A light whose rays so easily affect all forms of photographic plates. And when a florescent substance, such as Barium-Platino-Cyanide screen interposed, is capable of illuminating nearly all substances, excepting those having a very heavy atomic weight.

A light which has advanced Skin Therapy far beyond any agent known for ages.

A light (which we mention with deepest regret) has numbered, oh, too many of its victims among its early and most noble experimentors and perfecters.

A light which has handed back to life, or made balmy the tortuous pains accompanying the declining days of many inoperable cases of malignancy.

A light which has filled to overflowing the reception room with a class of patients, thereby increasing to a society rating the bank account of the unscrupulous, avaricious charlatans.

A light which has never had its superior as an aid in bone surgery.

A light which has, as no other discovery, verified the old axiom: "A physician may bury his mistakes."

But 'tis my aim only to give some brief deductions which I have made, and a history of a few cases which, to my mind, verify these deductions, after some six years experience, aver-

Read before the Oklahoma State Medical Association at Sulphur, May, 1908.

aging almost daily, with this and other forms of electrical energy.

Let me also state in the beginning that I have been a general practitioner and have not had the time, had I the cash, to become an X-Ray fanatic. Although, I admit, at times after I had almost reached my limit prescribing some other remedy for some chronic eczema, or acne, or was called upon to treat some superficial epithelioma situated near some of the delicate structures of the face, and at my extremity watched them so satisfactorily fade under the careful exposure of the X-Ray—being almost ready to shout a lifetime allegiance to this King of Therapists. But it remained for only the next case, which had a more deeply imbedding, or situated adjacent to a better lymphatic supply, to knock my voltage down to a flow hardly sufficient to flash a fuse.

First, regarding diagnosis by X-Ray, let me say with all due respect to those who do not have the time, or have not developed the talent for using mechanical diagnostic agents, that I do not believe credit is reflected upon our profession by the yet too many of our learned men in their specialty, who pass aside with a smile or by assuming an experienced air, X-Ray diagnosis or treatment. They class such physicians with and consign such agents to the advertising quack, who looks more to the psychological and remunerative than the curative effects produced upon his patient. However, we believe that since the X-Ray has been more nearly perfected by tube manufacturers, and since time and experience has taught us more of its uses and abuses, its use is becoming more of an everyday necessity; until today we may walk upon the non-advertised X-Ray machine in some physician's office in almost every hamlet, or read some paper mentioning the verification of a diagnosis by the X-Ray and skyograph from some leading surgeon in almost every journal we may scan.

Carl Beck, Professor of Surgery, New York Post Graduate School, in a recent paper upon "Mal-Union of Bones," printed in *Journal A. M. A.*, states that after an opportunity to observe two hundred seventeen cases of mal-union of bones, mostly treated by surgeons of good repute, he suggests the following axioms:

First. That the "Roentgen method, in combination with the usual methods of examination, determines the character of the suspected injury."

Second. "No bone injury should be treated unless at least one reliable Roentgen Ray picture is taken."

Illustrative of these axioms, now are many cases in my mind, one of which is quite vivid. An old lady, who was jerked to the ground by a cow which she was leading, was attended by a more experienced and as well qualified surgeon as myself, examined carefully, pronounced only a "sprained shoulder." He treated her by bandaging and mustard plasters for a "sprain and rheumatism" for a period of six weeks, until the lady came

to me to try the static current on her "rheumatism." Securing the history of the trouble, I at once put her under the X-Ray, which revealed very clearly an anterior subglenoid displacement of humerus. I invited the physician over to see the revelation, which he was sad to confess, and did, for at least a few weeks, cease telling the people of "what a fake an X-Ray machine consisted."

Another case, of a young lad having had a double fracture of the bones of the forearm about middle third, having it set by two responsible physicians, after five weeks, the splints removed, only to be refractured in the same place after a very slight trauma. His former physicians being away, he was brought to my office. Upon viewing with X-Ray it was easy to discern that the bones had formerly been only lapped and not the ends adjusted.

A *more* vivid picture to my mind is a case of my own, viz., a rather fleshy lady who was injured in a building destroyed by a cyclone. I attended her at a neighbor's home, treating her only for bruises or contusions, until some days later I insisted on her being able to come to my office "where we might have the benefit of electricity in treating her very painful shoulder." After the X-Ray was brought into play I decided that for the lady to take her place on the floor and for me to place my heel in the axilla and "stretch the nerves" was the proper way to treat her. This "nerve stretched" with a very familiar click in the shoulder, and she afterwards remarked that "electricity and nerve stretching was the greatest pain reliever she ever tried."

I am free to confess that on more than two occasions have I, after viewing with the X-Ray through my splint or plaster cast, a reduced subluxation or a fracture, deliberately removed my dressings and readjusted a mal-position. Let me assert that the consolation, satisfaction and relief of all anxiety or maybe a mal-practice suit is worth far more than the price of a skyograph or the cost of an X-Ray equipment. The diagnosis of a bone injury or disease in most of the levers or pivots of the body can be diagnosed much earlier by the use of this agency than the usual method.

Acknowledging my deficiency in doing skyographic work with the assistance of only an ordinary photographer, I here present one dimly printed view of a hip joint, which I took about two years ago for a neighbor physician, and made a diagnosis of tubercular hip joint. The patient was continued under treatment for a fracture by other physicians, not of best repute, for nearly two years. This same patient has been under our care for the past eight months, having a discharging, sinused, tubercular joint with all its usual manifestations. Recently we have a partial ankylosis with almost an entire cessation of discharge.

The author exhibited some skyographs during the reading of the paper, but no cuts were furnished the Journal.

The field for X-Ray work as an aid in diagnosis of only bone maladies and injuries, we say, is too extensive and numerous to give further illustrations. So, passing over its field of usefulness and capabilities of further development in the diagnosing of cavities and deposits in the lungs and the recent announcements by Dr. Pfaler of Philadelphia, by which he feeds his patients a mixture of bismuth compound and takes a skyograph of the stomach and intestines, showing very clearly their positions in gastroptacies and enteroptacies, we mention its more practical value in observing mal-positions of the liver and heart. Also, its positive diagnostic aid in many cases of renal or vesical calculus. We now have under our care a gentleman in whom we have been able, on two occasions, to very clearly see this stone, but we have so far made a failure in our attempts to photograph same.

The aid of the X-Ray in locating foreign bodies inside the body is recognized by all as the most valuable index as to where surgery is needed. Take, for example, that abominable piece of needle which that washerwoman has broken off in her hand. Your patient being too poor to pay you for two or three hours of probing, cutting and sweating drops of anger and blood, there is at least one consolation, you know where that piece of needle has taken up its abode.

Another case I call to mind is that of an intelligent young man, who was hurriedly brought to my office one morning by an anxious father and a number of friends, having an accidental shot from a 22-calibre rifle. Ball penetrating the flesh just at the upper or superior angle of the scapula on left side, patient gasping for breath, pale, with a rapid pulse. Friends and even myself almost sure that the ball lay near the heart or had probably lacerated some of the important vessels. I immediately placed him under the X-Ray, and in a moment had located the ball down in the auxiliary space just posterior and inferior to auxiliary artery and nerve, having glanced downward along the scapula, through the infra-spinous fossae. Under local anaesthesia it was removed, the patient now having become rested, respiration and pulse were soon normal.

As to the therapeutic value of the X-Ray, no investigator or reader of the standard medical journals can doubt. Yet, there is a varied difference in opinions as to the selection of suitable cases and the results attained. These differences of opinion, we believe, are explained by the same differences in the use of any other powerful therapeutic agent, namely, by deficiencies in methods and technique. We attempt to expose every malignancy persistently and continuously to the X-Ray, without considering its location, cellular structure, or stage of development, using the same power tube for each and every case. Many times have I had a most brilliant success treating an epithelioma. A little later, after I had broken my former tube, having purchased a new one of same number, but not of same vacuum, another case comes in very similar in many respects to the for-

mer case. After I had treated this case as nearly the same as the former, I make a complete failure as to results.

I shall not attempt to relate in this paper non-surgical cases such as eczema, the greater majority of which yield to X-Ray therapy, also acne, pruritis, psoriasis, nevi or birthmarks, keloids, etc., many of which yield much earlier and with far better cosmetic effect to X-Ray therapy. But to consider only a few cases of epithelioma, lupus, rodent ulcers and tubercular glands:

Case No. 1. Some time during the month of March, 1903, Mr. S., was referred to me by Dr. Fuller, then of Weatherford. History: A mole on back part of right ear had been bruised by some means some four or five months previous and began enlarging with an inflammatory area over the entire posterior surface of the ear, also extending into the tissue overlying the greater part of the mastoid process. As usually the case, he had been treated by a number of so-called "cancer specialists." Incidentally he had dropped into Dr. Fuller's office, who brought him to me to experiment with X-Ray, advising him not to seek any more of these "wonderful cancer cures." This case could easily be diagnosed as malignant carcinoma. The entire concha of the ear, with its cartilage being destroyed and all the posterior surface of the ear, also, all the superficial tissues overlying the mastoid process were broken down and giving off a foul discharge, the mastoid process being almost visible in one place. The ulcerated process had extended to middle ear until its parts were already totally destroyed.

I promised a trial of the X-Ray, but he was not able to begin treatment until April 25th. During April I gave him four exposures, in May twelve, June three, and so on in very irregular manner, but it was the best we could to suit his convenience, till August, 1904, I had given him one hundred and three exposures. The effects of raying were very marked from the first six or eight exposures, lessening the secretion, stimulating of healthy granulation, until within four months almost the entire surface was covered by cuticle, even to the remaining borders of cartilages. Indeed, several times during this period, all discharge had ceased, the offensive odor had disappeared and the middle ear seemed to be healing. He died some six months later from mastoid involvement.

Case No. 2. Mrs. R. came to me on April 15th, presenting this history: For two or three years she had had a small, warty like growth on right side of neck, just below the ear. Some eight or ten months before it began enlarging very much, thickening at base until it was now as large as an egg, projecting behind the lobe of the ear, pushing it forward. The center of this growth presented a broken, ulcerated, discharging appearance. She had, as usual, been treated by several different "specialists" with lotions and plasters, only to seemingly aggravate and stimulate its growth.

I began raying April 15th, giving ten treatments during

April; in May, eight, and six in June. The sero-purulent discharge ceased and the enlargement began diminishing very perceptibly after three or four exposures. Now, nothing remains but a slight scar. This is one of the most remarkable and rapid improvements of any I have ever seen in a case diagnosed as malignant sarcoma.

Case No. 3. Mrs. W. was referred to me on February 24, 1904, by Dr. H. The case presented a well marked rodent ulcer over prominence of malor bone, which had already been diagnosed as such by the doctor. The submaxillary and slightly the parotid glands of left side had already begun enlarging in their attempt to rid nature of this poisonous spot, which covered a space of about the size of a half dollar.

I began raying February 24th; gave three exposures during February; eleven during March, five during April and two in May, giving twenty-one in all. The last on May 13th, when the former site of the ulcer presented a soft, fresh, slightly roughened surface, but nicely covered by epithelium. The glands also gradually returned to their normal size.

Case No. 4. Mr. L. consulted me about a destructive sore on right alae of nose. He told me he had been treated for cancer by several physicians of good standing, their methods being the usual cauterization and plasters and pâstes, but with no curative effect. Considering the time since its first appearance, two or three years ago, its location and slow progress, my diagnosis was lupus. I began raying July 1, 1903. I rayed for twelve or fifteen minutes for three days successively, protecting, as I usually do, the healthy parts by means of a thin sheet of lead foil. After three days, the edges beginning to become slightly erythematous and easily bleeding, I gave exposures only at intervals of two or three days, continued through July and until August 25th, giving him twenty-five exposures in all.

Before the end of July, even after five or six treatments, it was very perceptible that the cuticle was fast covering the diseased area. On September 11th I dismissed him, the scab having come off and the entire border and base of the remaining area being covered by a soft, smooth cuticle. Mr. L. has not yet ceased telling almost every man from whom he buys cattle what the X-Ray did in saving the remainder of his nose.

Case No. 5. Mrs. K. was referred to me by Dr. R. She had a roughened, irritable, easily bleeding sore on palmer side of left index finger of last phalanx, this sore being about the size of a dime. Dr. R. had used the ordinary ointments, antiseptics and dressings with no effect on the sore, which was gradually spreading, now giving slight pricking sensations through the finger into the hand.

The history was this: During the summer and fall she had nursed and frequently dressed her father, who had carcinoma surrounding and internal of orbit of left eye. Her father died in November. She remembers that toward the latter part of her father's illness to have pricked this same finger at same spot

with a pin from the dressing of her father's wound. Some days afterward she noticed the beginning of this sore, and was very confident that this was its origin.

I began raying this small but evidently stubborn sore on May 4, 1904. This rodent ulcer, as was very evident, began drying and ceasing to be irritable from first few treatments, until May 30th nothing remained of the former trouble excepting a small central point about the size of a pin head. Ten exposures in all being given, this now entirely disappeared.

Case No. 6. On July 19, 1905, the patient, Mr. D., whose photo is here exhibited, came to me for treatment with epithelioma at inner canthus of left eye, also, two polypoid growths, one projecting from each lid, bearing the characteristic malignant complexion. I clipped off the growths smooth with the lids and began raying in usual way, however, having more than ordinary anxiety as regards the sight from the eye after I had finished raying. During July, August and until September 11th, I had given thirty treatments. The eyesight is now as near perfect as before treatment and the lesion entirely covered with epithelium. He came again at my request in February, 1906, when I gave three additional treatments. Heard from this patient last month; there is yet no sign of return.

Case No. 7. In November, 1905. Mr. D. came to me, having a lesion on right side of upper lip; made diagnosis of epithelioma. Began raying November 15th, observing usual methods and precautions, excepting not trying to protect the hair on upper lip.

During November and December I gave ten exposures; in January one and February one. At this date the lesion had seemingly entirely healed, and I insisted that he come once or twice a month until several more exposures had been given. At his last visit, February 6th, I had modestly suggested the financial side of the proposition, so he never returned, soon after moving to another community. I had lost sight of him until recently I learned that he had a return at the same point, and was being rayed by Dr. Bungardt of Cordell, Oklahoma. The Doctor tells me that it appeared much more stubborn than formerly.

Case No. 8. On July 5th Mr. O. came to us, referred by Dr. C., having a lesion very evident of epithelioma at outer canthus of the right eye, extending into and under the upper lid. He had had a similar lesion on the temple of the same side and had been cured while in Oregon by the X-Ray. Of course he was quite confident of the X-Ray; we feeling doubtful after we had examined carefully, noting the involvement of the conjunctiva, also a foul discharge from inside the canthus.

This patient we gave twenty-five treatments during July, August and until September 6th when, at our request, a complete enucleation and curettment was done. As yet am informed there is no return at same point, but a suspicious looking growth on right leg.

Case No. 10. On November 18, 1905, Mrs. U. came to us,

having a lesion, foul, discharging and giving every evidence of malignancy. She had, some four or five months previously, had the application of a paste and sloughing of same, and had appeared to be entirely healed. We gave her exposures as follows: Remainder of November, five; December, nine, January, seven. However, before the end of January, to all appearances, she was well, but we continued giving, in February three, March one, May, one; none since May 16, 1906.

Now someone is ready to say, "This appears very well on paper, and we doubt not the X-Ray's value in the cases related, but might not these same cases have been suitable for operation by the knife, or some of the arsenical or caustic pastes? Or will the permanency of this method of treatment bear comparison with surgical?"

Now let us here agree with you that surgery would have been possible in most of them. But let us remember that several of the enumerated cases were ladies, and the lesion situated upon the face or where exposed to the gaze and curiosity of the public. The appearance of a woman's face is her chief adornment, and her self consciousness or embarrassment is oftentimes a miserable burden of her life. Now, no surgeon who has viewed a sufficient number of cures by the X-Ray can deny it is the chiefest of agents from a cosmetic effect. Indeed, many scars, contractures, keloids, etc., are very materially improved by cautious raying.

As to permanency, I refer you to the report on same by Wm. A. Pusey, professor of dermatology, University of Illinois, published in the *Journal of the American Medical Association*, January 11, 1908, in which he reports a collection of one hundred and eleven cases of epithelioma, treated more than three years ago. "Eighty are yet successful, two practically successful; benefited, seventeen; failures, twelve." In my own experience since January, 1903, with quite a number of successes in various malignancies, I now recall only one return, the epithelioma of lip, as per photograph exhibited.

In a brief summary let us offer a few conclusions to which we have arrived in our limited experience.

First. We believe all injuries and maladies of the bones should be, whenever possible, subjected to X-Ray examination before adjustment or treatment is attempted.

Second. Though yet in its infancy, most pathological conditions or displacement of internal organs shall soon be diagnosed by X-Ray.

Third. In the locating of foreign bodies within the body, it is the indispensable aid.

Fourth. As a post-operative agent, for the stimulation of granulation or for the destruction of any possible remaining tubercular or malignant cells, it should be used in the majority of cases.

Fifth. In most post-operative cases of malignancy the pain and suffering is very much mitigated and perhaps life prolonged by X-Ray exposures.

Sixth. In all cases of lupus, epithelioma, sarcoma, scrofula, where superficially and not adjacent to a great lymphatic supply, where cosmetics is to be considered, the X-Ray is most successful and should be the agent selected.

We believe the X-Ray to be one of the greatest aids to diagnosis, one of the strongest therapeutic agents, capable of good or evil, according to its intelligent or unintelligent management or application. Then let us give more time and attention to its study and applications. Let us wrest it from the hands of the advertising, vociferous charlatan, and place it in the hands of the intelligent, honest regular physician and surgeon, who has ever led in the discovery, development and perfecting of all the greatest agencies for alleviating suffering humanity.

(There was no time for discussion of this paper.)

THE REAL ETHICS.

(From the Annual Address of the President of the West Virginia Medical Association.)

The younger men in the profession, perhaps, do not appreciate the importance to themselves of a high standard of ethics as the older men do. The former look forward with enthusiasm to professional distinction and financial success, and these are commendable and honorable, if worthily obtained, but the older men have learned that these are not the best of life. But to be able to look calmly back, without regret, through the long vista of the years, to words of comfort gently breathed, to deeds of mercy kindly done, to acts of courtesy nobly shown, this is what they value more.

I would exhort young men not to take up this noble life work with any feeling of distrust, or with any lack of appreciation of the older men who have borne the heat and burden of the day, blazed out and cleared the way for easier progress. You may easily have a less degree of appreciation of them than they have of charity for you. Their armor may be battered and worn, for it has been used, but it has been kept untarnished. They will encourage you and hold up your hands in every case where you show yourselves worthy. Strive to stand in your age and generation as they have stood in theirs.

There is great danger of overlooking the human or philanthropic side of a case in the enthusiasm which scientific research arouses in a student of biology. This science being the basis of modern medicine, is so interesting and such an enticing field for research that to an intense worker a case may appear to be merely an object upon which to make scientific observations. Beware of this error and remember that, to a patient, there is but one object in the practice of medicine, and that is to make him well, to cure his ills.

Remember the difference between a case and a patient.

Remember to treat the patient as well as his disease.—Bernays.

Remember that drunkards, children and patients with jaundice or splenic disease bear loss of blood very badly.—Bernays.

**THE NECESSITY OF THE GENERAL PRACTITIONER
KNOWING WHEN AN OPERATION SHOULD BE
DONE, AND OF THE SURGEON BEING
CONSERVATIVE AS TO OPERATION.**

(By James L. Shuler, Durant, Oklahoma.)

In coming before the Society upon this subject we wish to consider very briefly the two extremes in making up a diagnosis. A mistake in either must be more or less grave in its results, and it is not always easy to determine the results of the mistake that has been made, as the results are often hidden in mystery and will remain so throughout countless ages.

If, within the scope of this short paper, I shall have caused some physician to offer his needed advice to some suffering patient and point him to the means by which relief is obtained, I shall not count my effort a failure. So let us be cautious, but look well to the welfare of those depending upon our advice.

We must first consider the necessity of the general practitioner being qualified to determine when a surgical operation should be made. Of course we must first allow in many cases that such determination is very difficult and cannot be determined by the most skilled and experienced diagnostician, but the impression we wish to make is the avoidance of such flagrant mistakes as are often made along this line.

We wish to impress the responsibility that rests upon the general practitioner. But few fully realize the sacred responsibility that is entrusted to him when he assumes the work of directing the destiny of human lives.

In considering this subject, we hope to encourage the practitioner in a general way, to give more careful thought to cases that might be operative, that is, cases that could be better treated by surgical procedure than without. But more especially should the thought be directed to cases that require surgical interference, and where this is the only means by which the condition could be met at all. How often has the painful realization come to us that while we were watching and waiting, trying to realize whether an operation must be done, that the time and opportunity for saving the patient by timely operative procedure has passed. Is there a physician or even a surgeon in the house that has not had this experience haunt him?

There is a general inclination, upon the part of those who do not do surgery, to overlook even positive indications for surgical interference. Being busy with the cares and worry of different conditions that they are confronted with day after day, they are naturally inclined to drift away from the thought of surgery, and often their patients who do require the special care of the surgeon are not so advised until it is entirely too late for a hope of successful results. Now this is a serious condi-

Read before the Oklahoma State Medical Association at Sulphur, May, 1908.

tion and must be met in some way, and how to do so is a matter for careful consideration.

Could we but gather together the great array of patients in our enlightened state of Oklahoma who actually need and require the attention of the surgeon, even those cases that can never obtain or hope for relief by any other means except the knife, what a vast army of suffering humanity would be marshaled before us in their miserable and wretched condition. What an awful thought confronts us when we contemplate this imaginary spectacle.

We realize that many such cases would continue to exist after they had been properly advised by a physician as to what could be done for them in this way. Many would not submit to an operation under any circumstances nor under any convincing influences that might be brought to them. But there are many of this vast number, after having been properly advised, would seek and obtain relief. There is not a practicing physician but that has cases, within the scope of his knowledge and practice, that absolutely need advice in regard to conditions requiring surgical operations. We are often neglectful of advising people sufficiently impressive in this way and, on account of timidity, we permit many of our worthy patients to be neglected. I would not, under any circumstances, wish to leave the impression that we shall get out and indiscriminately solicit people to submit to surgical operations, but we should discharge well our duty in this way to those who look to us for advice.

No one sustains such close and sacred relations as does the regular family physician to his people. And since the physician is so near his people, it is to be expected of him that he shall qualify himself for this great trust. And the first prerequisite for this preparation is that he should be an honest, sober, moral, truthful man in the full sense of what these noble attributes indicate. Secondly, by the acquisition of such knowledge and information as will properly fit him for such responsibility and trust.

The life and conduct of the regular physician should be such as to be counted a synonym of purity and perfection, and should be so regarded wherever the name is mentioned. Then, and not until then, is he qualified to properly discharge the responsibilities that are placed before him in giving advice and determining for those who so implicitly trust and abide by what he directs. And we may never expect the work of surgery to accomplish what it should until these points of qualification and fitness are attained more generally by the profession. For we know that most cases of surgery, of whatever character, come to the surgeon through the advice of the regular physician. It is therefore eminently necessary that he should have a thorough knowledge of surgical diagnosis on every line of surgery, even of the special lines. And he should keep himself thoroughly posted upon the lines of surgical advancement and the minutia of special operations. His general knowledge of surgery and

surgical diagnosis should not be any more limited than that of the surgeon to whom he refers his operative cases. And the only reason or excuse that should be offered for referring his cases to the surgeon is that the surroundings and preparations place the surgeon in a position to do operations in a more thorough and aseptic manner, and perhaps his dexterity in doing the work.

In considering this subject, I count of not lease importance the cautious, conservative consideration of every case that is proposed for an operation of every kind, however grave or minor in appearance.

We know that there is such a desire with some to operate that they often venture far beyond the line of conservatism. Conservatism is, or should be, the beacon light that should guide every surgeon, and should never be lost sight of at any time. It is the ballast that steadies the vessel while the waves roll high and while the unfathomed depths yet hold their mystery, far beyond the piercing, anxious mind of the surgeon.

To the young, ambitious surgeon let me say, be cautious, be careful, be conservative. When it is generally and popularly known that surgeons do actually exercise the proper amount of reserve in all cases, and when it is generally accepted that the paramount object with all surgeons is the ultimate welfare of their patients, physicians will be more inclined to entrust their patients with surgeons, and we will find less hesitancy upon the part of patients in giving their consent and submitting to surgical operations.

I feel that there is an urgent necessity for conservative surgery, especially with our young, ambitious surgeons, and I realize, too, that it is to this class that the future shall look for greater progress, greater advancement and greater achievements.

But far too often this tendency of venturing a little too far from the established lines is indulged in by some of our surgeons, who fail to avail themselves of the great advantages that are afforded in the post-graduate schools, and the great clinical experience that can be obtained. Quite often this inclination is only checked by the surgeon making some grave, irreparable error.

Is there an existing necessity for conservatism in the practice of surgery? Let us answer this question thoughtfully in our daily practice of this science. It is a question that we must answer continually, either correctly or incorrectly. The question is with you, and the destiny of your patient depends upon the solution you render.

DISCUSSION.

(Dr. Gilchrist of Texas being seen in the audience, Dr. Clark, Chairman called upon him to open the discussion).

DR. GILCHRIST, Gainesville, Texas:

I was interested in the paper. The question of all physicians being qualified in surgery is well worth considering. It is very often we hear physicians say: "I do not like surgery and do not do it." In communities

where there are no men giving their entire attention to surgery it is very necessary that physicians be well posted as to when an operation is necessary. I have seen many cases where lives might have been saved if the attending physician had known that an operation was absolutely necessary. In talking with Dr. (reporter did not catch name) not long ago, he said he kept himself not only posted on surgery, but on all other lines. He is one of the best surgeons in the country.

DR. A. K. WEST, Oklahoma City:

The paper is one of very considerable interest to the physician and surgeon alike. There is considerable food for thought in that paper. Human nature is such that we like to minimize the work the other fellow does and laud that which we do ourselves. It is with the physician much as with the contractor who takes a contract for a building. The contractor is liable to the man who causes the erection of the building. He does not do all the work required in the building. He does not do the plumbing, but he does not say that plumbing is not necessary; he holds himself liable and sees that some one who is capable of handling that work is employed to do it. So it is with the physician; he becomes liable to his patient for the outcome of his illness, and if something arises that he does not feel competent to handle he should know what it is and who can do it. I feel that to be a good practitioner I must know surgery to some extent. If there is a man who can do the work better than I, and if it is necessary for me to employ a man whom I do not know, then it behooves me to stay with the case and see that it is cared for well, and a reasonable fee is charged. We must maintain the relationship of the family physician to his patient and to his surgeon.

DR. GROSSHART, Tulsa:

In regard to the surgeon and the general practitioner: The paper is well outlined. There are certain men who don't do surgery; some who understand surgical diagnosis do not do surgery and cannot. A surgeon must understand anatomy the same as a machinist understands his machinery, and while a practitioner may be a good anatomist and a good diagnostician, he may not be a good mechanic. There are too many practitioners of medicine who trust to general conditions and think the patient will recover. They go to a case dying from septic conditions or from some organic lesions and call on the surgeon, and the surgeon, as the last hope, puts the man on the operating table, and if the patient dies from the operation the fault is laid on surgery and on the surgeon. The practitioner does not get the blame, but the surgeon gets it. There are many cases where surgery is done in which it is not necessary. A man who will, because a woman has a slight pain in her side once a month, do a double ovariectomy upon her, is not a surgeon nor a doctor. The family physician and the surgeon should get closer together—when this is done, the race will be taken care of. More lives will be saved.

DR. SHULER, Closing:

I thank the gentlemen for the notice given to the points I endeavored to bring out in my paper. I think the general practitioner should be up on surgical cases. He should know what is necessary. He is, as the family physician, the one trusted to advise. I think that a good deal is required of the physician, that it is rightly so. I believe that a man should live a better life when he becomes a practitioner of medicine than is required in any other calling.

PRELIMINARY TREATMENT, CARE OF THE WOUND AND AFTER TREATMENT OF LAPAROTOMIES.

By Dr. L. H. Huffman, Hobart, Okla.

In the examination of a patient preparatory to a laparotomy the importance of a correct diagnosis cannot be overestimated. It is easy enough to know what to do when we know what we have to contend with, and upon this theory rests the value of a thorough and correct diagnosis. To do this will require not only the necessary knowledge and technical skill of the surgeon, but he *must* also have the clinical experience, which can fortunately be easily obtained in service as an assistant to others who possess this experience in our large hospitals of the cities.

In making an examination we should be able to judge of the patient's condition, aside from the particular ailment from which he is suffering, and in each case make a careful *general* examination. This should include a physical examination of the chest, the nervous system, examination of the urine, in some cases the blood, and if any cough, microscopical examination of the sputum. In the preparation of the patient, we should make a last and thorough examination after the patient enters the hospital, and this should be followed by an equally competent associate, and the results compared.

A systematic and a definite scientific plan can be adopted that will be comprehensive and not increase the amount of labor materially.

The principal conditions to be determined before the operation I have outlined in the following brief method: First, family history with reference to tuberculosis, mental disorder or malignant disease. Second, personal history; under this topic we notice the personal characteristics. Patients with sluggishness of thought and action bear well the inflictions of physical injury. The athlete who prides himself on his strength is unsuited for the confinement of the sick room. The environment, the history of the effects of menstruation, child bearing, miscarriages, complications and sequels of parturition should be carefully weighed; whether or not a patient be married or single, happy or unhappy, active or idle, occasional or frequent sexual indulgence, deformities and accidents are each worthy of investigation, for the lesson taught is: carefully take the history of the case if you wish to make a correct diagnosis.

Read by title at the annual meeting of the Oklahoma State Medical Association at Sulphur, May, 1908.

Third. Development, nutrition and weight.

Fourth. Examination of skin.

Fifth. Examination of Chest.

Sixth. Examination of pulse.

Seventh. Inspection, palpation and percussion of abdomen. By inspection of the surface of the abdomen, the outline, color, markings and movements assist in the diagnosis. By gentle palpation, cautious and deliberate use of the ends of the fingers, we may be able to judge the size, the depth, mobility and the physical characteristics and sensitiveness of a growth.

Eighth. Examination of the urine.

Ninth. Examination per rectum, per vagina.

Tenth. Exhaustive examination of the diseased part or location.

The day before the operation give a light diet, abundance of sterilized hot water, a non-irritating cathartic and a warm bath. With the majority of patients, a large dose of castor oil will, in a short time, relieve the patient of much waste matter. Oil is borne perfectly by almost all patients, and it does not give rise to disturbances, pain or exhaustion. Two ounces given in connection with beer or malt extract the day before the operation, to be followed with a soap and water enema the morning of the operation.

It is a bad practice to hold a patient in waiting for a number of days for an operation. The strength will be impaired by confinement and his nervous system will suffer by looking forward to an operation. The patient should be impressed with the fact that there is no danger in well conducted narcosis, which always gives encouragement and removes an important element of danger in the apprehension of impending disaster.

The care of the skin in the field of operation: The important point in preparing the surface is a thorough washing with soap and water, anything more is of little importance. The usual steps taken are:

First. Soap and warm water with a moderately stiff brush. Second. With gauze to remove the epithelial scales. Third. Soaping and shaving. Fourth. Gauze and sterile water. Fifth. Alcohol and covered with sterile dressings. There is no virtue in preparing the patient the day before operation.

Laparotomy *wounds* are no exception to the rule, the ideal closure of any wound is that which approximates closely each and every part of the divided surfaces and retains them a sufficient length of time for absolute repair to be complete.

In laparotomies, keep the wound dry; sponge around the wound first, and in the wound afterward with a different sponge.

In the selection of suture material there has been for many years a wide difference of opinion among surgeons. I have used but two, catgut and silk wormgut.

The through-and-through silk worm sutures are introduced

from within, about one inch apart, and include more tissue in the abdominal wall, using two needles with each suture. Continuous catgut in three layers, peritoneal, muscular and superficial fascia. The gauze is removed from beneath the peritoneal layer at the closing of the peritoneum and all foreign material carefully removed from the wound. Tie the silk wormgut *loosely* and remove in two weeks. The through-and-through sutures give firmer support to the incised walls than any other, and such complications as vomiting, distention by gas, which occur to all surgeons, will not interfere with the normal repair when protected by non-absorbable suture.

I use drainage only in wounds that are primarily septic, and when there is doubt as to the aseptic condition of the wound drain. Glass tubes closed at the end with a small number of perforations and a small piece of gauze is placed in the tube to act as a drain, and a piece of iodoform gauze is folded and placed around the tube, and with this covering is carried down deep into the pelvis to the point to be drained. The first change of dressing is done in from four to five days after the operation. Five per cent iodoform gauze is kept next to the wound, covered with a good amount of sterile gauze put on in a fluffy manner; this covered with absorbent cotton and an abdominal binder, all of which are sterilized.

In the after treatment of patients upon whom abdominal operations have been performed are many problems, and the solution of these questions admit of a *great* variety of methods. No one method is so far superior to another to hold a sufficiently large portion of surgeons together to establish the right method. Therefore, we may assume there is no single method. One surgeon will open the bowels of his patients with laxatives within twenty-four hours; the other allows the bowels to remain quiet for five or six days. One patient is fed as soon as an appetite is developed, and the practical starvation of another; the use of morphine, and its absolute prohibition; the prolonged rest in bed and the enforced getting up within twenty-four hours. All of these methods, opposed as they are, have been used with the utmost success. Personally, I have used different methods. The fate of the patient, it has been said, is sealed with the wound, and if my limited surgical experience has taught me anything, it has taught me *this*: That if my surgery is satisfactory and my patient has gone from the operating table free from sepsis, hemorrhage and shock, the after treatment loses its importance. However, now and then we have cases in which the after treatment plays a very important role. Do as little as possible for the patient. I keep the stomach empty, thirst is quenched by rectal enemas of warm water, often repeated; no ice, no drink, nor medicine. Cold pack to the throat, mustard plaster to the stomach, or in cases of extreme vomiting, washing the stomach is indicated. One-sixth of a grain of Hyosine hydrobromate by injection for cough, two and one-half grains suppositories of codeine or thirty grains of chloral per rectum for pain; hypodermic injections of strychnia, with glycerine, turpentine and water

enemas for flatulence. The so-called gas pains are partially relieved by each enema. I do not take the risk of waiting too long after a laparotomy for the through-and-through peristalsis to be established. Stimulate the bowels to activity. I use effervescent saline laxative because they can be safely continued at short intervals without producing any irritation. To those who do not need the laxative, the bowels respond quickly and the patient feels better.

The much debated question, "The length of time patients should observe absolute rest in bed," has recently attracted much attention. I would allow no man to get me out of bed in twenty-four hours after a laparotomy because I would not be able to get out at the end of that time. The requirements of individual cases vary. It is safe and beneficial to let the patient out as early as is consistent with his general condition after an abdominal operation. Early mobility induces assimilation of food aids circulation, lessens chances for intestinal adhesions and better assimilation makes it possible to begin with a more generous mixed diet soon after the operation. I am absolutely opposed to the hurry up method. In my opinion, prolonged absolute rest in bed has no dangers attached to it, despite the fact that there is a growing tendency to lessening the time. A large percentage of these cases are broken down neurasthenics, half-starved, ill-nourished, sexually abused women, and the surgery is only a step toward their recovery—but an enforced getting up in two weeks is irrational, and in 24 hours is brutal. What these people need most of all is *Rest*; physical, diatetic and mental *rest*. Err on the safe side.

The increasing importance of hospital instruction in the practice of surgery and medicine these later years is remarkable. The anaesthesia and antisepsis aid in a scientific precision. The bacteriologist, the appliances, preparation of the operating room and application of the permanent dressings are all regarded as essentials by the successful and high grade technical operator.

The *training* in modern hospitals of this country should be a prime requisite for the surgeon or practitioner before graduation. How many of you could differentiate measles and scarlet fever at the time you graduated, or find the anatomical location of the organs of the living human body, or give a reliable prognosis for a patient?

We may all hail the day with pride that the clinical and actual bedside experience we get in hospitals shall be an essential requirement before we may have the privilege of the practice of surgery or medicine, and this may insure to the public the highest degree of skill and experience of the members of this profession.

Hospitals are increasing at a rate that positively insures to every community the opportunity of having every variety of disease or injury immediately placed under conditions most favorable for recovery.

These institutions increasing so rapidly indicate to me that the time is approaching when The American Practice of Surgery will be established on strictly scientific principles.

*APPENDICITIS, WITH SPECIAL CONSIDERATION OF ITS
VARIED PATHOLOGY AND TREATMENT.*

(By V. Berry, M. D., Wetumka, Okla.)

In looking over the record of my cases of appendicitis, it is a striking fact that, pathologically and clinically, very few cases are exactly alike. In fact, my last seven cases have been so striking in this respect that I deem it might be profitable to present a brief history of them, as they illustrate the saying that "each case is a law unto itself;" and again emphasizes the fact that he who essays to operate in this field should be thoroughly drilled in every phase of this disease, for no man foreknows what he will find on opening the abdomen.

You will note that four of the reported cases were operated during the past sixty days—am writing July 10, 1908—and all seven were operated during the space of seven months. One died from sepsis and shock, and the other six patients made satisfactory recovery, the last one being now out of bed part of the time, though the wound has not entirely closed.

Case two, being complicated by empyema of the gall bladder and gall stones, had a prolonged and tedious recovery, but is today in a satisfactory condition.

The series presented only one case of simple catarrhal appendicitis, uncomplicated by other pathology. The others were all of grave character, in which operation was positively indicated. It is a striking fact that of the six patients who were in a dangerous condition only three demanded operation after an intelligent understanding of their condition; while three were operated after the most persistent urging. This accounts for the high mortality usual in a rural community where the people have not been educated to a realization of the futility of medication in such a condition. Half, or even a higher percentage of operations we see today in the great hospitals are for simple catarrhal or ulcerative appendicitis, and a death rate of over two or three per cent is reprehensible. In a community like the one in which I work, a death rate of five per cent is worthy of note; for often the patient is simply breathing. Besides, a trained nurse is often an impossible luxury, and the surroundings such that the ordinary conveniences of a home impossible. However, some of the best results I have ever attained have been in the little cabin home, so distant that I could not see the patient for two or three days or more after the operation. This shows what can be accomplished if we utilize to the best advantage the material we have at hand.

Case 1. Mr. G., aged 20 years, had had recurrent attacks of acute appendicitis for two years previous to consulting me in December, 1907. He was rendered unable to follow almost any kind of manual labor about half the time. The attacks were growing more frequent, coming on every two to ten weeks, pain being of an intense character at times, having a soreness that caused a limp on walking, even after all active pain had disap-

peared. December 28, 1907, the abdomen was opened by the usual muscle splitting method and an inflamed, thickened appendix, filled with viscid mucuous removed. It was of a pouch like nature, constricted near the base, and presented no serious operative difficulty. His recovery was rapid, being out of bed in eleven days. Saw him five months later and he was entirely free from all symptoms of the disease.

Case 2. Was called to Yeager, Okla., March 3, 1908, to see Mr. R., 35 years of age, occupation general merchant, by Dr. Mitchell, his family physician. On arrival at the bedside found the patient suffering from pain in the region of the appendix, temperature 102 F., pulse 122, and presenting an anxious facial expression. His first symptoms occurred March 1st, so I was informed by Dr. Mitchell, though the Doctor was not called until the 2nd. His physician had readily diagnosed his cause of illness, and on consultation, we advised that his condition was grave and would require prompt surgical interference. The abdomen was opened March 4th, and a small, ulcerated appendix, surrounded by pus and dense adhesions, removed. The patient was in such a critical condition as to make it hazardous to attempt to look further than the appnedix for the origin of infection, so a gauze and tubular drain was quickly inserted, and he was put to bed with a very feeble pulse of 140, and almost in a state of collapse. Shock was pronounced and saline injections were used with slow response. His condition was precarious for several days. After two or three days the flow of pus was very abundant, and intense septic intoxication was evidenced by repad pulse, delirium, pallor, etc. Some eight or ten days after operation, while assisting Dr. Mitchell dress the wound, we discovered a well marked sinues leading to the gall bladder, and on exploration a large gall stone was found and removed from the sinues. By further exploration a smaller stone was removed and the gall bladder thoroughly irrigated. Pus in enormous quantities continued to flow from the wound daily for some weeks, but by packing and irrigation, the cavity gradually contracted and closed. He is now—over four months after operation—in fair health and leading an active business life, though he was confined to the house more than two months.

Case 3. March 10, 1908, I was called by Dr. Sanderson, of Henryetta, Okla., to see a Mrs. C., aged 28 years. Found the patient with a temperature of 101.6 F., pulse 130, lower right abdomen rigid and tender on pressure, with marked tympanites. The face was pinched in appearance and covered by marked pallor. All the evidences of peritonitis were present, and as a consequence a grave prognosis was given. After considerable persuasion the patient consented to an operation. On opening the abdomen the appendix was found sloughed off, and a leaking perforation of the caecum existed, discharging fecal matter into the abdominal cavity. A purse string suture was placed with difficulty, on account of the friable condition of the tissues, the abdomen sponged out, and free gauze and tube drainage pro-

vided. The gangrenous appendix was simply pinched off, as it was hanging by part of its mesentery, which was almost destroyed by gangrene. Shock was intensified by the operation, and Dr. Sanderson informed me she never rallied, death occurring in about twenty hours. Her death resulted from septic peritonitis, hastened by shock of operation.

The outset of her illness dated about five weeks previous to operation. The first attack was very violent, her temperature ranging as high as 104 F., at times. Localized peritonitis was present at the beginning, and her symptoms simulated a ruptured pyosalpax, so Dr. Sanderson informed me. She was constantly and seriously ill from the start, but would not consent to surgical interference till driven to it by her desperate condition—another victim of delayed surgery.

Case 4. May 4, 1908, I was called to see Mr. McC., 22 years of age, farmer by occupation, seven miles north of Wetumka. Found a sturdy young man rolling on the bed with agonizing pain in the region of the appendix. a pulse of 126, temperature of 101 F., right leg drawn up, and had been vomiting freely. He said he had jumped off a bank eight feet high four or five days previous, and had had pain in the region of the appendix ever since. On careful inquiry I found he had suffered for several months at intervals with mild "bellyache," as he termed it, which "settled in the right side." However, I have no doubt the climax was caused by his injury at jumping. Every evidence of pus formation was present, and operation advised, but resolutely declined by both patient and family. However, on May 7th his condition became so precarious that consent was given. He was then suffering from sepsis, and the outlook was very doubtful. On opening the abdomen the appendix was found sloughed in two about the middle and surrounded by an extensive walled-off pus cavity. By absolute prohibition of food by the mouth, and by rectal feeding instead, we had succeeded in preventing the spread of infection, proving again to my mind the great value of Ochsner's teaching along this line. The appendix was ligated *en masse*, by very careful and delicate manipulations, and free gauze and tubal drainage applied, only twelve minutes being consumed in the operation. Recovery was very satisfactory, the patient sitting up in two weeks and the sinus closing completely in six weeks. He is now working on the farm, and says the rest in bed was what he had needed for several years.

Case 5. Mr. R., aged 28 years, farmer by occupation, was referred to us by Dr. Patterson of Wetumka. Was called to operate on the afternoon of May 17th, a few hours before leaving for Chicago to attend the meeting of the American Medical Association, and never saw the patient again until June 8th, when he was practically convalescent. When operated he had a temperature of 100.6, pulse of 120, and all the other symptoms that go to make up a case of appendicitis with recent perforation. On opening the abdomen the appendix was found to be

inflamed, and with a small perforation near the tip. Only a few drops of pus were present. The appendix was very difficult to find on account of its being high up and behind the caecum. The abdomen was carefully sponged out after removal of the appendix, and almost the entire length of the opening sutured, leaving a small rubber tube in the lower angle, to be removed in 48 hours if his progress made it advisable. Dr. Williams, who cared for him in my absence, reported some infection of the abdominal wall, which necessitated cutting a few stitches, but aside from that his recovery was without special event. He is now doing ordinary farm labor.

Case 6. Was called, June 18, 1908, by Dr. Stiles of Morse, Okla., to operate on a Mr. D., farmer by occupation, 30 years, who gave a history of paroxysmal pain in the region of the appendix for over a year, his last attack being more severe than any except one, and lasting about two weeks. His temperature had varied from 99 F., to 103.5 F. On my arrival it was 99 F., and pulse 98. Examination gave the usual classic symptoms, which would be monotonous to repeat here. Operation revealed the caecum and appendix thoroughly tied down by adhesions, the appendix being posterior to the caecum. The appendix was a short, stubby affair, dilated in the form of a pouch, and filled with muco-purulent fluid. Scar tissue gave evidence of long standing disease. Removal was effected in the usual manner and the abdomen closed. Recovery was satisfactory, with the exception of slight stitch infection.

Case 7. June 26, 1908, was called by Dr. Broad of Okemah, Okla., to operate on a Miss F., aged 15 years, who, on my arrival—fifty hours after the outset—was found to be in grave condition, showing pronounced evidence of shock and sepsis. Four hours previous to my arrival a distinct rigor had occurred, followed by almost complete subsidence of pain, which had before been severe and almost constant. Her face was ashy, pulse 130 to 140, feeble and wiry, and temperature 102 F. The lower right abdomen was hard, sensitive, and somewhat tympanitic. The parents considered the subsidence of pain a good omen, and thought of postponing the operation. Dr. Broad explained to them that the subsidence of pain was no doubt due to complete death of the appendix, which was correct, and advised an operation as the only and last resort. Parents and patient being exceptionally intelligent, readily consented; and on opening the abdomen a black, completely gangrenous appendix was revealed, and more than an ounce of dark, foul smelling water poured from the wound. This case illustrated beautifully Murphy's dictum that a "dead appendix gives no pain," and the pathology shows the futility, not to say absurdity, of medical treatment in such a case. The appendix was absolutely gangrenous from base to tip, thick, spongy and friable. It was tied off *en masse*, after ligating the meso-appendix, and removed. The caecum was not lifted from the abdominal cavity, but every effort was made to avoid manipulations. Free gauze and tubal drainage

was applied and the patient put in Fowler's position, and normal salt solution given almost constantly per rectum for the first twenty-four hours. Her condition was precarious, and remained so for more than three days, pulse and temperature ranging high, but improvement was rapid from the fourth day and has been satisfactory to the present time. Se is now out of bed most of the time—July 10th—and the sinus practically closed.

In summing up the management of these cases we are forcibly reminded of valuable lessons confirmatory of principles laid down by such men as Murphy, Ochsuer, Fowler, Deaver and others, principles which have become mile posts in the treatment of this disease, and which have reduced the mortality to almost nothing. The following principles are absolutely sound, and absolutely essential to the successful conduct of these cases; and he who fails to master the technique and apply it has *no moral right* to operate for appendicitis. I will go further, and say he is doing criminal malpractice, for the mortality is frightful *without* the application of correct and fixed principles. I would refer to the following: Stop all food by the mouth in acute septic cases, and feed by nutritive enema; give no purgatives; put all septic cases in Fowler's position and apply Murphy's method of administering normal salt solution per rectum for twenty-four to forty-eight hours; operate rapidly, with as little traumatism and manipulation of the viscera as possible, and last, but not least, do not try to do too much. Never consider any patient too desperate to be allowed a chance for his life, even though he is just breathing. However, in the future, we are going to have fewer of this type of cases, as the family physician is becoming more skilled in diagnosis and realizes the great saving of life by early operation.

My thanks are due the following physicians for reference of cases and kindly assistance in the operations: Drs. Cagle, Williams and Patterson, of Wetumka; Dr. Broad and May, of Okemah; Dr. Warterfield, of Holdenville; Dr. Mitchell, of Yeager; Drs. Breese and Sanderson, of Henryetta; Dr. Stiles, of Morse, and Dr. McDonald, of Okfuskee.

Remember that in the most aseptic operations that we can do, several thousand bacteria will get into the wound. These will be nicely eliminated or made harmless if the tissues have been gutly handled by the operator, and are healthy.—Bernays.

The scientific study and diagnosis of a case is one thing, the treatment of a patient is another. Both functions are demanded of a physician, and the ability to fill them both well, when combined in one man, has made the great masters in our profession.—Bernays.

Moderate bloody discharge after extirpation of the gall bladder is most often due to oozing from the raw surface of the liver. Sudden, profuse, bloody discharge is more dangerous, as it means that the ligature has slipped from the cystic artery.—American Journal of Surgery.

MY PRESENT POSITION ON APPENDIX QUESTIONS.

And Reference to the Dawn of the Fourth or Physiologic Era in Surgery.

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The time has arrived when we may, at least tentatively, classify four separate and distinct kinds of appendicitis: 1, Fibroid degeneration appendicitis; 2, infective appendicitis; 3, congestive appendicitis; 4, appendicitis by external invasion.

Fibroid Degeneration Appendicitis.

This is an irritative lesion rather than an infective one, and it seems to be one, on the whole, which takes the largest number of patients to the physician.

It occurs during the course of normal involution of the vermiform appendix. In this process there is replacement of the various structures of the appendix by hyperplastic connective tissue. Nerve filaments persist for a longer time than most other structures in the appendix which is undergoing involution changes, and these nerve filaments are irritated by the contracting connective tissue in the same way as other nerve filaments are irritated in contracting connective tissue in other parts of the body—notably in the scars of amputated limbs. The effects of irritation of entrapped nerve filaments in the appendix seem to be of two chief kinds. Irritated sensory nerve filaments give rise to a sensation of discomfort in the appendix region. This is commonly little more than an indefinite feeling of discomfort, but it may amount to actual pain. Patients are apt to press on the abdomen with the hand over the appendix region, or to lean against a chair or table for relief. Irritated sympathetic nerve filaments entrapped in the contracting appendix seem to cause an excitation of the intima ganglia of the bowel wall (Auerbach's plexus and Meissner's plexus), and this leads to derangement of function of the secretory and excretory apparatus of the bowel, causing intractable intestinal dyspepsia.

According to my experience, fibroid degeneration of the appendix is the commonest single cause for intestinal dyspepsia. This probably does not often merge into infective appendicitis for two reasons: First, the structures involved in infective appendicitis are actually removed through connective tissue replacement; second, the chronic irritation calls out chronic leucocyte protection, so that the patient suffering from fibroid degeneration of the appendix seems to be specially guarded against infective invasions.

Diagnosis of Fibroid Degeneration.—There are five important diagnostic points for recognizing fibroid degeneration appendicitis:

1. Hyperesthesia of the right group of lumbar ganglia, when deep pressure is made at a point about one inch and a half to the right of the navel.
2. Constant presence of gas in the cecum and ascending colon to the hepatic flexure.
3. Intractable intestinal dyspepsia.
4. Persistent discomfort, varying in degree, in the appendix region.
5. An appendix which feels harder than the normal appendix on palpation.

The condition of fibroid degeneration of the appendix causes disturb-

ance for many years, but is seldom noted in patients less than 20 years of age. It belongs to middle and later life. It is well understood by a few diagnosticians, but has been overlooked in most of the patients whom I examine. So little is the condition recognized as yet that surgeons operating in cases diagnosed as chronic appendicitis have sometimes closed the abdomen without removing the "inconsequent appendix" which was found, believing that they had made a mistake in diagnosis. Other surgeons removing such appendices on general principles, but still believing that they had been mistaken in diagnosis, have been surprised at the prompt and unaccountable recovery of the patient's health.

Patients do not often go to bed with the irritative lesion of fibroid degeneration of the appendix. They are the patients who go the rounds of the profession asking for definite diagnosis in connection with their appendix symptoms or for their intestinal dyspepsia. Blake has described a series of cases corresponding closely with these cases of fibroid degeneration of the appendix, but he ascribes the symptoms to faulty mesenteric attachment. I believe that his specimens were not subjected to microscopic examination, and that another series of specimens, examined with reference to fibroid degeneration, will be found to contain many belonging to the latter class rather than to the class in which faulty mesenteric attachment leads to mucous inclusion or to vascular derangements.

Treatment of Fibroid Degeneration.—My position relative to operation in these cases of fibroid degeneration is to advise against it when the patient is first seen. He is asked to follow treatment under the care of his physician. Many of the patients, relieved of their fears of appendicitis, become so well that they need little further attention. Other patients will return at the end of a few months and ask to have the fibroid degenerating appendix removed.

On account of my interest in the subject, some of my assistants at the hospital, for the sake of brevity, got to calling these cases "cases of Morris' appendix." The nomenclature is not allowable for two reasons. Senn described them in a general way as cases of "appendicitis obliterans," and Ribbert referred to the condition as "normal involution of the appendix" before I took up the study and noted the presence of persistent nerve filaments and observed the occurrence of hyperesthesia of the right group of lumbar ganglia as a diagnostic point. If for the sake of brevity it is desirable to call cases of fibroid degeneration of the appendix by the name of any observer, they should be called Senn or Ribbert appendices.

Another reason why the nomenclature of "Morris' appendix" is undesirable is because the appellation has gone wrong in some quarters and now stands for the perfectly normal appendix. This began apparently in a spirit of humor, but by *reductio ad absurdum* on the part of serious men it led to the conclusion that I favored the removal of the normal appendix. As a matter of fact, I have always opposed the idea of removal of the normal appendix, even when it appears incidentally in the course of some other operation. My reason for this is that the field about the normal appendix is unprotected by leucocytosis, and the opening of ever so small a part of the intestinal lumen in an unprotected field calls for a great degree of skill.

A type of appendix which may be confused with the fibroid degeneration appendix is the fibrous scarred appendix remaining after infective invasion. The history of acute infective invasion, and the destruction of nerve

filaments along with other structures in such an appendix will commonly serve for making the distinction.

Infective Appendicitis.

At present infective appendicitis is the most conspicuous ailment of the appendix, even though numerically the cases seem to take second place. My position in regard to causation of this type of appendicitis has not changed since the publication of my book on the subject in 1895. This work is now out of date on many other points. I believe the common, acute, infective appendicitis to be due to anything which causes the inner soft coats of the appendix to swell to the point of strangulation within the tight outer sheath. It matters not whether this swelling is caused by the presence of a concretion, the extension of an ordinary colitis, a blow or a twist from the psoas muscle, or any one of a number of disturbances.

As soon as the lymphoid, mucous and submucous coats have swollen within the tight sheath of muscularis and peritoneum they become anemic (compression anemia). An isolated anemic area of this sort should be instantly attacked by bacteria, for the reason that it has momentarily lost its leucocyte protection, and because the bowel bacteria of the lumen of the appendix are right at hand to begin invasion into such an anemic area. The infective process is brought to a halt in one of three ways: 1, By sufficient determination of phagocytes to the point, through blood vessels not disabled entirely; 2, by sufficient determination of phagocytes to the point of blood vessels in neighboring structures which have become adherent to the infected appendix; 3, by surgical removal of the appendix.

When to Operate.

It is evident that without surgical operation the infective invasion is confined only by the limitations set by the autoprotective factors of the individual patient. By this we mean his ability to manufacture opsonins and phagocytes, and to get them to the field of action through unobstructed blood channels. On the basis of this belief I still hold to the dictum, stated many years ago and which aroused considerable antagonism, to the effect that in acute progressive infective appendicitis operation must be performed as soon as the diagnosis is made. The reason for this is that the bacteria are performing an operation on the appendix, and operation by the surgeon is merely a transfer of authority. We can never know in advance what limitations to infective invasion are to be set by the patient, but we do know what many surgeons are able to accomplish, for their statistics are available.

My position towards cases that are first seen when an acute attack is evidently subsiding depends on judgment in individual cases and can not be stated as a dictum. Sometimes it is best to operate, in order to shorten the period of convalescence and to avoid the danger of recrudescence of infective invasion. Sometimes it is best to wait for entire subsidence of infection and to choose the interval stage as the time of operation. The advantages of waiting for the interval are not so great as commonly supposed. The reason is that in the interval between attacks we lose the benefit of the local hyperleucocytosis that has been called out by the infection, and the patient has to get up a new local leucocytosis for the surgeon when he finally operates.

My position toward operating in the interval depends entirely on the case. Many patients have had the appendix wholly destroyed in a violent

attack and never need an operation subsequently unless for separation of troublesome adhesions. Other patients carry chronic infection and mucous inclusions after the subsidence of an acute attack, and these patients call for operation as soon as a convenient time can be arranged. I have had many patients get into trouble because they set the convenient time too far away, and they had to have a hurried operation at a most inconvenient time. It is not difficult, by palpation and by observance of the subjective symptoms, to classify interval cases pretty accurately, so that we know which patients need operation and which do not.

The Incision and Treatment of the Stump.—Concerning the choice of incision for interval cases of appendicitis, I still hold to the McBurney or gridiron incision. The results are so ideal that I do not dare to change to other types that have been advocated by other operators. The skin incision need not often be more than an inch and a half in length, no matter how extensive the adhesions, and the split muscles fall together so readily that hernia is avoided. A pair of scissors and a needle are about the only instruments that are required in any sort of appendix operation. My position toward treatment of the stump in interval cases has changed several times. I have employed nearly all the methods that have been advocated. Since the publication of Seelig's convincing article on the subject in the *Annals of Surgery*, about three years ago, I have put aside fears and now litigate the stump simply like an artery, dropping it back into the peritoneal cavity after touching it with carbolic acid and neutralizing the carbolic acid with alcohol, which latter should be washed away with a little saline solution to avoid all irritation. This simple treatment of the stump suffices because the stump falls against parietal peritoneum, which walls it in quite as securely as does peritoneum infolded from the cecum. The adhesion to parietal peritoneum is at a point where the cecum is naturally fixed, so no harm results. By dropping fanciful methods of treating the stump we can save from one to five minutes of time, and this will allow the entire operation to be completed without hurry in less than ten minutes in most interval cases.

Cases With Gangrene or Perforation.—My position has changed greatly in regard to treatment of appendicitis cases with gangrene, perforation and products of infection outside the confines of the appendix. Twenty years ago I worked deliberately, made long incisions, and sometimes multiple incisions, for thorough wiping and flushing of the peritoneum. Gauze drains, gauze packing and other sorts of drainage apparatus were employed. Hydrogen dioxide was used for rapidly throwing out products of infection. I then tried to introduce refinements, in the way of more speedy work. Multiple incisions were discarded and the single incision was made shorter and shorter, until now for most cases of extensive infection I use about the same incision as for interval cases. Wiping and flushing the peritoneum, and the use of gauze drains and gauze packing were gradually dropped, as fast as I could feel that I was on safe ground.

After the publication of Dr. John G. Clark's notable paper in the *American Journal of Obstetrics* relative to complete closure of the abdominal cavity without drainage, in pyosalpinx cases, I tried for about a year, in appendicitis cases with pus and peritonitis, the method of flushing the peritoneal cavity with saline solution and then closing without drainage. Primary union was obtained in many cases. None of the patients died and

none had increase of peritonitis. Secondary abscess appeared just often enough to make the method undesirable, and I now use a short wick drain and only one. In patients with thick, fat or strong muscular abdominal walls, I sometimes exchange the gutta percha covering of the wick drain for sheet lead, which is benign in the tissues and which maintains a free opening through heavy walls.

In these cases of appendicitis with pus and peritonitis I have not changed from the idea of breaking up adhesions sufficiently to allow of finding multiple pus pockets, as well as for turning out the appendix; but I avoid separation of the entire mass of adhesions, because they immediately reform, and sometimes in undesirable positions. I have little objection to spreading pus on normal peritoneum which gets into the field, or of leaving such peritoneum covered with pus, as the patient's autoprotective factors care for it promptly. In former years I damaged these patients very much in attempting to do various kinds of "ideal work" with the stump, but for some years now I have particularly avoided efforts at bringing the cecum to the surface in cases in which it would cost the patient too much. The appendix is ligated simply at the bottom of the well, or in the worst type of cases it is not even ligated. A pair of forceps is snapped over the base of the appendix and left in situ until the following day.

The appendix in these cases can often be pulled away with the fingers, and in some cases in which it is seen to be black and gangrenous it is not even necessary to do this, as it will melt away and run out in a day or two. It is only in the desperate class of cases, however, that will need to leave a gangrenous appendix—the class of cases in which it is best to complete the entire operation in three or four minutes. In cases of appendicitis with pus and peritonitis it is best to complete the operation in from five to fifteen minutes as a rule. This not only conserves the patient's natural resistance, but it means a short period of intoxication with the anesthetic. Little attempt is made at protecting the normal peritoneum against pus in the course of the operation, and very often pus is still welling freely from the wound when the absorbent outer dressing is applied and the operation completed. The wound is not sutured closely, and sometimes is allowed to remain without any sutures. In these cases the advantages of the grid-iron incision are supreme, as the walls fall together so nicely that hernia is almost confined to fleshy patients. In several hundred appendicitis cases since adopting the gridiron incision there are but four hernias, so far as I know—three in fleshy patients and one in a case of omental grafting for a sloughed cecum.

It was my preconceived notion that fecal fistulas would occur rather frequently after the sort of treatment that has been adopted for the stump in these cases of appendicitis with pus and peritonitis, but it seldom appears, and when it does it closes spontaneously without attention in a few days. One can keep a fecal fistula going interminably by applying "ideal treatment" of washing it out, inserting drains, and employing antiseptics which are injurious to the delicate granulation tissue. If the fistula is neglected properly, the undisturbed granulation tissue will be quickly replaced by connective tissue and the connective tissue will contract and close the opening.

After-Treatment.—In the after-treatment of these cases of appendicitis with widespread infection I have not dared to try different postural methods which are known to be valuable, as my results have been so satisfactory

with the old recumbent position. The Ochsner starvation treatment I have adopted and applied with great satisfaction, except that I prefer to do a three-minute operation promptly in the class of cases in which Ochsner would not operate until later. Murphy's method of slow instillation of saline solution into the rectum I had applied in principle with the Quimby bag for some time before Murphy described the method and presented the profession with a perfected apparatus for its application.

The refinements offered by quick work, short period of anesthesia, as little surgery as possible, avoidance of flushing, wiping, packing and the use of extensive drainage apparatus, meet with such response on the part of patients that no surgeon accustomed to the classical regime could fail to note the advantages of the methods which I have chosen. Patients so dazed by infection that they do not recognize the surgeon at the time of his examination may often be found reading the newspaper in bed the day after the operation.

Scientific Neglect.

The treatment which is advocated in this paper may almost be classified as a treatment of neglect. Our highly developed art was not satisfactory when applied to cases of appendicitis with pus and peritonitis. There was a lack of harmony between art and appendicitis. For example, in 1904 Dr. L. W. Hotchkiss* published a report from one of the hospitals with which he was connected, showing that from 1895 to 1898 the operative mortality rate in cases of appendicitis with peritonitis was 30 per cent. In 1899 Dr. Hotchkiss changed from the accepted methods of the day and turned to methods which conserved the natural resistance of the patient. He did not have a single death in his next seventy-two cases, although they were of the same class as those which had given a 30 per cent death rate under conventional art, and in which 30 per cent death rate is common over the whole world today. In the year when Dr. Hotchkiss changed his methods, Chauvel|| made a report on the treatment of appendicitis in the French army for three years. There were 171 cases; 83 were treated medically and 88 surgically. Medical treatment had a mortality of 4 per cent among those treated before the fourth day, 37.8 per cent among those treated from the fourth to the eleventh day, and over 50 per cent for those whose affection was not recognized and treated until after the eleventh day. Surgical treatment had a mortality of 42 per cent among those operated on in the first five days, and 30 per cent in operations from the fifth to the tenth day. France represents the highest kind of art, and I therefore make this quotation from that country, although nearly all the European countries showed equally disastrous results from attempting to apply the art of the day to the particularly trying cases of appendicitis with pus and peritonitis. It has resulted in turning our faces toward a new era in surgery in general.

Twelve years ago, when I reported a series of 100 consecutive unselected appendicitis operations, with a death rate of 2 per cent, Dr. Keen publicly protested at Denver against the acceptance of such a report, and Dr. Savidge wrote to the Medical Record, saying that it must mean selection of cases for report. Since that time so many other surgeons have presented still better statistics that today I may perhaps present for purposes of illustrating the theory a report on my last 100 appendicitis operations at the Post-Graduate Hospital, dating from the last patient out of bed on May 1. There were forty-one cases of appendicitis in all stages of acute attack,

with no deaths. There were fifty-nine cases of chronic appendicitis of various sorts, with one death. This death was due to ileus caused by faulty readhesion. There are no hernias in the series so far as I know. No patient was refused operation.

Congestive Appendicitis.

Congestive appendicitis occurs with loose kidney and in various conditions causing general obstruction to the lymph and blood circulation of the abdominal viscera. In these cases the swelling develops slowly. There is time for the adaptation of the tissues of the tight outer coats to the swelling tissues of the soft inner coats, and the result is very different from that in which rapid swelling leads to compression anemia. There seems to be no further result than a rather tense and tender appendix, which is amply protected, and which does not have a tendency to go over into the infective appendicitis class, so far as my observation counts.

Appendicitis by External Invasion.

A fourth separate class of appendicitis cases may perhaps be made up from those in which the infection approaches from without. Tuberculosis of the peritoneum, and various infections from the oviduct, frequently involve the appendix incidentally, attacking the outer coats first. The inner coats swell, and may even undergo destruction, but the process is so slow that we do not look for the mishaps accompanying rapid swelling of the inner coats to the point of compression anemia. The gradual approach of infection from without calls out protective factors which take charge of the field and seem to prevent the occurrence of infective appendicitis, as that term is commonly understood.

The Fourth, or Physiologic, Era in Surgery.

It seems to me that the object lesson of the results of conserving the patient's natural resistance, in cases of appendicitis with peritonitis, has opened the vista of a new epoch in surgery.

In the days of Hippocrates surgery was heroic. That represents the first era. Then came Andreas Vesalius and the anatomists, and we had the second or anatomic era in surgery. Pasteur and Lister introduced the third, or pathologic era. The pathologic era is the one now prevailing the world over. The dominant idea is to prevent the development of bacteria in wounds and to remove the products of infection by means of our art.

Appendicitis has been so refractory in response to the perfection of the art of the pathologic era that when the rubber glove appeared, representing the last degree of refinement of the art, it seemed to have overset the whole system. The use of the rubber glove necessitates comparatively slow work, the employment of long incisions and work by sight. Geologists tell us that the constant accumulation of snow and ice at the antarctic pole may cause a sudden changing of the axis of rotation of the earth. The rubber glove was the last snowstorm of the pathologic era of surgery, and the sun is now to shine on what is perhaps the most fertile era ever exposed to light.

Our faces are now turned toward Metchnikoff and Wright, with their descriptions of phagocytes and opsonins, and of the natural protective forces of the patient. We are at the dawn of the fourth, or physiologic, era in surgery. We are to conserve the natural resistance of the patient and to turn him over to his phagocytes and opsonins as helpfully as we can. We are to leave the patient in his best condition for manufacturing phagocytes and

opsonins, through the shortest possible method of anesthesia and the least degree of surgery which will suffice to turn the tide of battle between bacterium and leucocyte.

That is the new principle—turning the tide of battle only and leaving the patient with his physiology as nearly intact as possible. The first object lesson in support of the new idea was perhaps furnished by the physician who did not believe in operations for appendicitis, and whose patients sometimes recovered, even though they had pus in the peritoneal cavity. These cases required explanation, and we now have the explanation. The patient attended to the bacteria and to the products of infection. Our surgery of the pathologic era had a tendency to damage the patient to such an extent that he could not destroy his own bacteria and products of infection. The object lesson furnished by the patients of the physicians who did not believe in operating for appendicitis, and the object lesson furnished by the results of operations which neglect the details of the art of the pathologic era, are lessons sufficient for a basis of the coming art of the physiologic era in surgery.

616 Madison Avenue.

**Med. News*, July 2, 1904.

||*Bull. de l'Acad. de Med.* January, 1899.

—J. A. M. A.

BERNAYS ON GLOVES.

"Rubber gloves are of use if the operator must do an aseptic operation after a septic one. They are not the boon that we expected them to be. I have nearly abandoned them after many trials. In my case so much fluid or swsat accumulates in them in a short time, that puncture will let out half a drachm or more of fluid, containing many bacteria, especially if I have been obliged to use force in tying ligatures. There are other objections to gloves."

Murphy obviates this danger, largely, by always putting on his gloves dry.—Editor.

A certain Chicago firm that advertises and sells a wonderful hair restorer publishes among its testimonials a letter from a young lady who naively says that "since using this preparation my head is fairly teeming with life." We recommend the young lady to rub in sulphur and vaseline and use a fine tooth comb.

Never confine old people to bed for long, on account of the tendency to fatty and dilated heart and hypostatic congestion of the lungs.—Bernays.

Everybody likes and respects self-made men. It is a great deal better to be made in that way than not to be made at all.—Oliver Wendell Holmes.

The students of Dr. Byron Robinson are erecting a bronze bust to him. The affair is in charge of Dr. Benjamin Orndoff, 2277 Wilcox Avenue, Chicago, Illinois.

EXCHANGES

ADVERTISING AND USE OF PROPRIETARY PREPARATIONS.

This Journal yields to none in loyalty to the American Medical Association and in appreciation of the good work that the Council on Pharmacy and Chemistry has done and is doing in weeding out worthless preparations, and giving information to the general practitioner, who has not the time, and may not have the ability, to investigate for himself. We also believe that our State Society Journals should not be so eager to meet the expenses of the journals by accepting advertisements of unethical or questionable preparations. But we cannot endorse the proposition to bind ourselves to admit **nothing** in our Journal that the Council has not passed upon or has hastily decided as questionable, or condemned. We have been pained to see severe condemnation of preparations concerning which there is a decided difference of opinion among men who are the most ethical, and a rather hypercritical spirit, in the condemnation, of the firms that manufacture those preparations, which we believe is not only improper, but tends to destroy the trustworthiness and value of the condemning judgment passed upon them.

We are all fighting a gigantic combination and should do so in a manner and spirit that will not alienate any who desire to help in the fight, even if we do not approve all their methods of conducting business. When their methods are proven to be dishonest or dishonorable and their preparations are found to be unethical, it is, we believe, the proper time to dispense with their help and to refuse to advertise or prescribe their preparations. Let us not be misunderstood. We shall loyally support the A. M. A. Council and as a rule—with very rare exceptions—shall shut out from our advertising columns what the Council has condemned; but, recognizing the fact that the ablest and best of men—even chemists—make an occasional mistake, there may possibly be an exceptional case, when, on presentation of proof concerning a preparation, satisfactory to our Publication Committee, an advertisement may be admitted of a preparation that has been disapproved, or has not yet been acted upon favorably by the Council. We are uncompromisingly opposed to the advertising of any nostrum in this Journal.

We believe in unifying and properly organizing the profession and to a certain extent centralizing the power to outline and direct the general policy and conduct of the State and County Medical Societies. But there should be no arbitrary exercise of power that would crush out a proper spirit of independence of thought and action. We believe that tends toward demoralization and destruction of the unity and advance of the profession. This Journal will in the future as in the past stand for the maintenance of ethical principles—in the admission of advertisements as in all other matters, but we must claim and insist upon exercising an independence that we believe to be right in our relations with other societies and reputable manufacturers of ethical preparations.

We desire at the same time to express our belief that for the best interests of the members of the profession and their patients it would be far better for the physician to prepare his own formulae and send them to some reputable druggist, than to prescribe proprietary preparations

containing several ingredients that may not fully meet the requirements of the cases in hand. He should certainly avoid using all preparations whose active ingredients are not definitely made known to him, for that savors of empiricism rather than of the practice of scientific medicine.—New Jersey State Medical Journal.

There are more American Doctors "postgraduating" on the Cook's tours plan in Europe this year than in any previous summer season. The customary plan of study is to include a "course" at Vienna, Berlin, Paris, Heidelberg, London, Edinburgh and at a few other centers of thought of learning; to make a score or more side sight-seeing trips and to do the whole trick in a period of from six weeks to three months. It's bully to "postgraduate" in this way, and it's even bullier to tell the patients about it when you come back. There are some simple laymen who are very much impressed by having you preface a sage remark with, "when I was studying in Vienna." How do they know that the only thing you had time to study there was a collection of timetables? But unsatisfactory as these sixty-day study trips are, they serve a splendid purpose as vacations, and the doctor does not have half enough vacation time.—Chicago Clinic.

LODGE PRACTICE.

The physicians who engage in lodge practice may usually be divided into three classes. To the first group belong young men just starting out and who accept such positions simply as a tide-over and then resign after being able to get along fairly well. To the second group belong men of all ages who have been unable to establish a well paying practice. To the third group belong those who are well established and have a lucrative practice, but who are inordinately selfish and avaricious and who apparently have no neighbors in the profession, for they are not Samaritans by practice. What is right for one physician to do is right for all to do. Imagine all physicians engaging in lodge practice, alas, then pity the sick! Some physicians engaged in lodge practice admit it is wrong, but try to excuse themselves by saying that if they will not do it others will. They admit it to be a wrong and manifest a willingness to do the wrong as well as the other fellow, and hence are no better. Others in lodge practice try to excuse themselves by saying it is no worse than the work given to cheap insurance, but the one consists of the practice of medicine among a clientele who do not come to them out of choice but because they are cheap; the other is not practicing medicine at all. Again, two wrongs do not make one right and hence this is no excuse at all. The question is, is this kind of contract practice just and right, or is it unjust and wrong?—Holtzapple, in Pennsylvania Medical Journal.

CARSON'S CONVICTION.

"Hiram Carson, alias Dr. C. H. Carson, was found guilty in the criminal court last Thursday and Judge Porterfield assessed the maximum fine of \$500 against him. The charge against him—practicing without a license—is only a misdemeanor under the statutes of the state, hence a fine instead of the penitentiary sentence that would have undoubtedly been his due.

"This conviction is the beginning of the end for the laughable old charlatan who has battened on this section for so many years. He has appealed, of course, but that in no wise operates as a stay of execution against further prosecution. To be sure, he has fifteen attorneys, but they are a high

priced, rapacious lot, and their steady employment will prove a drain that even Carson's overflowing coffers will find it hard to stand.

"An effort will also be made to secure his arrest on felony charges, such as obtaining money under false pretenses, for what else is it when he takes the last dollar from consumptives, and gives them tissue paper slips as a guaranteed cure?

"More stringent legislation should also be passed at the next session so that the outrageous fellow can be permanently put out of business, and all the horde of cancer ghouls and similar quacks along with him. They have cursed this community long enough, and the mere fact that they spend thousands of dollars in advertising does not give them any standing in the eyes of the law.

"The agitation against quacks and quackery was started by The Independent two years ago, and the warrant for Carson's arrest was sworn out by George Creel. James A. Reed is Carson's principal attorney. A fitting selection, for they are certainly birds of a feather. After the imposition of the fine, he rose in snarling wrath, and asked for less than a maximum, stating that 'the whole thing was started by George Creel, that it would give Creel a chance to write lurid stuff in his paper, and that the prosecution was a blackmailing scheme of Creel's.'

"This is a lie, of course, and Reed well knew that he lied when he made the charge. The assertion was merely an expression of his own instincts and desires—the judging of another by himself.

"Mr. Creel has never spoken to Carson in his life, only knows the creature by sight, and has never had any communication with him save when he, himself, was threatened with blackmail if he did not cease the quackery crusade, and then through third parties. At that time a flat refusal was given to all propositions to quit, and this still holds good.

Carson's Interview.

"Carson, in the interview that the Star was very careful to give him, ascribed his prosecution to 'jealousy on the part of a few individuals who have sought to injure his business.' Inasmuch as this paper has conducted the fight against him, singly and alone, it must be to its editor that he refers.

"The charge of 'jealousy' is flatly denied. No, indeed! As the Gilliss heroines have it, 'rags are royal raiment when worn for virtue's sake,' and we repudiate the suggestion that there is anything approaching jealousy of Carson's 'easy money' in the editorial breast.

"Of course, if the newspaper business ceased to be a gold mine, and if there were no trenches to be dug, or streets to be swept, or even if porch climbing and footpadding were closed as avenues of legitimate industry, it might be that the writer would take up Carson's way of making a living. But not until then.

"In the same interview he also stated that 'this is a long drawn out case of more than two years' duration.' And whose fault was it? The state tried its best to secure a speedy trial, but Carson's troupe of trained attorneys always had a bunch of new delays, excuses, pleas, changes of venues, and, in one or two instances, descended to the depths of bad faith.

"Out of justice to the many reputable lawyers who succumbed to the lure of the Carson money, although condemning him in their heart of hearts, it must be admitted that they were ashamed of the business in which they found themselves. Their dislike to public display of their connection with the Carson case was really responsible for Jim Reed's employment. He furnished the 'nerve' and the others furnished the brains."

—Kansas City "Independent."

IODINE IN TREATMENT OF ULCERS.

Dr. J. W. Roop, of Apache, Oklahoma, writes:

"About two years ago I began using iodine for ulcers by painting the skin up to the edge of the ulcer. This produced such good results that I ventured to use it on the surface of the ulcer itself. The effect has been excellent. I have found this application of iodine a very efficient means of converting a septic ulcer into a clean, granulating wound which heals readily. I use it in a concentrated form or a saturated solution in alcohol and apply it every day or so as often as required until the slough separates, when an ordinary dusting powder and gauze may be applied. The iodine should then be discontinued, but if any unhealthy or superfluous granulations appear, it should be again applied. It quickly changes a phagedenic ulceration into a healthy condition. I have used it in many forms of mouth and throat troubles by painting it over the surface. It will arrest and cure pyorrhea alveolaris. I would suggest the free use of it in cancrum oris. The application is usually painless. It is extremely serviceable in infected wounds."—*Journal American Medical Association.*

THYMUS DEATH IN THE NEW-BORN.

Hedinger (*Jahrb. f. Kinderheilk.*, Vol. 63, 1907). The author contributes a series of autopsy findings, which serve to show that a certain number of apparently healthy new-born infants, both full term and premature, die sooner or later after a short normal labor, or after a protracted difficult labor, but under insufficient clinical circumstances, such as birth traumatism to account for the deaths. These infants succumb, as a rule, under the symptoms of asphyxia. The autopsy shows the presence of a more or less well-marked hyperplasia of the thymus, which may be combined with hyperplasia of the thyroid, as in certain cases observed by the author; the fatal asphyxia being generally referable to pressure upon the respiratory passages, sometimes also to compression of the large vessels. The hyperplasia of the lymphatic system in the new-born is almost exclusively limited to the thymus gland. The compression of the respiratory passages by the enlarged thymus cannot be demonstrated at the autopsy in the majority of cases, the demonstration requiring the preliminary hardening of the cervical organs. From the forensic point of view it is noteworthy that asphyxia may be caused by thymus glands, which, according to the general scale of weights and dimensions, would be estimated as only slightly or not at all enlarged.

Changes of the suprarenal bodies are not observed in the cases studied by the author.—*Medical Review of Reviews.*

"Seek not to please the world, but your own conscience."

Before incising a pharyngeal abscess through the mouth a small, hard pillow should be placed under the patient's shoulders, so that the head will drop back sufficiently to prevent the pus from flowing downward.—*International Journal of Surgery.*

Journal of the Oklahoma State Medical Association.

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This is the Journal of the Oklahoma State Medical Association, and every member is entitled to a copy every month; and if any member does not receive his Journal promptly, the matter should be reported to this office.
Communications of all kinds should be addressed to the Editor.

THE MANN BILL.

A bill is pending in Congress, introduced by Congressman Mann, of Illinois, which seems innocent enough at first glance, but a little close attention to the provisions of the bill will show that, if it should become a law, and the various state legislatures pass laws to back it up, the physician and his patients would be wholly at the mercy of the retail druggist.

A physician could not get, except upon a prescription, many of the most used medicines, and even on a prescription, only in very small quantities.

The apparent intent of the bill is to prevent traffic in habit-forming drugs, which, of course, is a very laudable intent, but it would seem unnecessary to include the doctor in the class who can not get drugs except upon a prescription, and thus compel every one to go to a drug store for every bit of medicine, except castor oil, calomel and quinine.

We suggest that every doctor in the country write to his members of both houses of Congress, asking them to see to it that the bill is so modified as to include the members of the medical profession in the privileged class named in the "Provided, however," at the end of the first section of the bill printed below. We did not have space enough for the whole bill, which may be found in the Journal of the American Medical Association, July 25th.

A BILL RELATING TO THE TRANSPORTATION OF HABIT-FORMING AND POISONOUS DRUGS IN INTERSTATE AND FOREIGN COMMERCE, AND FOR OTHER PURPOSES.

Be It Enacted by the Senate and House of Representatives of the United States of America in Congress Assembled:

That it shall be unlawful for any person, firm or corporation to send, carry, ship or bring into any state, territory, or the District of Columbia, by freight, express, mail or otherwise, from any other state, territory, or the District of Columbia, or from any foreign country, directly to a consumer, or to sell, or furnish, or give away, or have in his or her possession,

except as provided for in this section, in the territories or the District of Columbia, any alpha or beta eucaïn, chloral hydrate, cocain, hyoscin, morphin, opium, scopolamin, or any derivative or preparation of any of the foregoing substances, except on the original prescription or written order of a legally authorized practitioner of medicine, dentistry, or veterinary medicine, which prescription or order shall be dated and shall contain the name of the person for whom prescribed, or if ordered by a practitioner of veterinary medicine shall state the kind of animal for which ordered and shall be signed by the person giving the prescription or order. Such written prescription or order shall be kept on file for a period of not less than three years by the person, firm or corporation who shall compound the article or articles prescribed or ordered, and it shall not again be compounded or dispensed except on the written order of the original prescriber for each and every subsequent compounding and dispensing. In no case, however, shall the original prescription or written order, for a human being, call for more than one-fourth of one ounce of chloral hydrate, or more than one-eighth of one ounce of alpha or beta eucaïn, cocain, hyoscin, morphin, opium, scopolamin, or corresponding amounts of any derivative of the above-named substances, whether simple, mixed, or compounded into any preparation; and when two or more of any of the above ingredients are prescribed together the combined total quantity of such substances prescribed must not exceed one-eighth of one ounce. The above original prescriptions and written orders shall be subject to inspection at all times by any federal or state official delegated by the Secretary of Agriculture.

Provided, however, that the above provisions shall not apply to sales at wholesale by jobbers, wholesalers and manufacturers to registered retail druggists or to each other, or to sales made to manufacturers of medicinal remedies or pharmaceutical preparations for use in the manufacture of such preparations, nor sales to hospitals, colleges, scientific and public institutions.

EDITORIAL NOTES.

Dr. J. R. Hamill of Guthrie is convalescing after a siege of typhoid fever of nearly three months duration.

Dr. F. K. Slaton of Helena is doing post-graduate work in Chicago and Louisville.

The youngest son of Dr. Chas. W. Fisk of Kingfisher is recovering after an operation for appendicitis, complicated with peritonitis with serous effusion.

Dr. Stone of Kingfisher is recovering from a serious illness.

Among the professional cards in our advertising columns may be found that of Dr. B. Franklin Hodsdon, who has recently located in Guthrie to practice his specialty—Eye, Ear, Nose and Throat. The Doctor comes well recommended.

Dr. Elizabeth Melvin, of Guthrie, is spending the winter in Baltimore, at Johns Hopkins, doing work in pathology under Dr. Joseph C. Bloodgood, and is serving as one of the assistants of Dr. Chas. E. Simon in his private laboratory.

Original Articles

RAILWAY SANITATION.

BY J. H. STOLPER, PH. G., M. D., LL. L.

Chairman Section State Medicine, Oklahoma State Medical Association,
Krebs, Oklahoma.

Mr. President and Members of the Oklahoma State Medical Association:

Sanitation needs no introduction to a medical association, for it is the labor of the medical profession that gave birth to sanitation, and the labor while normal was a very hard labor; it has left a lasting impression, and therefore, sanitation has always been a favorite child of the profession, but railway sanitation is yet very much of a stranger, both to the medical profession and also to railway managements the world over, hence while this address is not indeed intended to be theoretical, but a description of practical facts as they are found, I nevertheless deem it desirable to define the jurisdiction of railway sanitation.

The functions and jurisdiction of railway sanitation are the supervision and control of all matters that affect the public health, while traveling, hence the cleaning and maintaining in a clean condition of railroad depots, restaurants and lunch counters, passenger cars, coaches, chair cars and sleeping cars, their ventilation, heating and illumination, disinfection, disinfection of depots, cars and toilet rooms. The supply of water and ice for drinking purposes are the proper objects in the jurisdiction of railway sanitation.

The fact is well known to all of you that, given favorable surroundings, one contagious case will convey the disease to as many as are predisposed to such infection, and are exposed to the infected agent, hence it seems to be rather surprising that our principal highways of transportation, upon which the enormous number of 797,946,116 passengers (1) were transported from and to every city, village and hamlet in the country, in all the different stages of health and disease, should receive very little sanitary consideration at the hands of railway managements and health authorities.

The great facilities for disseminating diseases of infectious and contagious types by railway traffic has induced me to take up the study of railway sanitation in a systematic way, in which I succeeded in 1904 beyond my utmost hopes, thanks to the co-operation of Messrs. Murray Carleton and A. B. DuPont, then president and vice president of the St. Louis Transit Company, and it was through Mr. Dupont that Mr. Joseph Ramsey, at that time president of the Wabash Railroad, became interested in

the matter, and thanks to whom I secured the co-operation of every railroad in the United States.

In undertaking the study of railway sanitation four objects were had in view:

1. Sanitary conditions existing on steam and street cars and depots.
2. What share, if any, have railways in the spread of diseases?
3. Sufficiency or insufficiency of sanitary legislation?
4. Who is responsible for existing sanitary conditions on railways?

With the above objects in view, a thorough study was undertaken, in the course of which every railroad operating on the North American continent, with the exception of Alaska, was personally inspected by me, where a study was made (a) of conditions of depots and passenger cars and dining rooms, lunch counters and dining cars; (b) existing facilities for cleaning and cost of cleaning equipment; (c) regulation to enforce sanitation adopted by each individual railroad company.

In regard to existing sanitary conditions upon railways, depots and cars were divided into several classes:

A1. Very clean and always kept in a clean condition, the comparison being made with existing first class hotels.

A. Depots that are clean to the extent of being frequently swept and washed.

C. Depots that are unclean all the time, and no attempt is made at cleanliness.

Keeping the above classification in view, the actual existing conditions become at once evident from the fact that I was enabled to place only 18 depots in A1 class, and these were:

1. New York Central depot, New York City and Albany, N. Y.

2. Pennsylvania depots at Jersey City, Philadelphia and Pittsburg, Pa.

3. Rock Island LaSalle street depot in Chicago.

4. Burlington depot in Omaha.

5. Union depot in Kansas City.

6. Missouri, Kansas & Texas depot at Oklahoma City.

7. Santa Fe depots at Dallas and Galveston, Texas, and Los Angeles, California.

8. International Great Northern depot at Houston, Texas.

9. Southern Pacific depots at San Antonio, Texas, and Portland, Oregon.

10. Northern Pacific and Great Northern depot at Seattle, Washington.

11. N. Y., N. H. & H. depot at Boston.

12. Union depot at Washington, D. C.

In Class A, I was enabled to place one hundred and twenty depots.

In Class B, two hundred and four depots.

In Class C, all the rest. Now, if we bear in mind that according to one of the best railroad authorities (2) we have at present (April, 1908,) in the United States, 18,317 stations—and by stations I mean a train stopping place—and as we often have a number of railroads coming into one station, and each has a separate depot, it becomes at once evident what a pitifully small number of depots are deserving to be considered as complying with even the elementary sanitary principles.

Regarding street cars, I can dispose of them in a very few words. There is, nowhere in the United States, with the exception of Detroit, Michigan, and St. Paul, Minnesota, any attempt even at cleanliness, the cars, as far as cleanliness is concerned, are left to the discretion of the born boss, who usually has other responsibilities, and hence the cleaning of the cars is without any supervision. So little attention is paid to the cleaning of the interior of street cars, that when I put the question to Mr. Root, general manager of the Metropolitan Street Railway Company of New York City, "What is the cost of cleaning your cars, per day or per car?" I was frankly told that the matter is too small to receive any consideration; the same experience I have had with with other managers of street cars.

The cleaning of cars on our large railways can again be divided into two subdivisions, (a) cars that enter into the makeup of the principal trains of any given road, such as the limited trains, and local trains going out from principal terminal stations, and (b) cars that enter into the makeup of local trains going out from smaller stations.

A limited train, no matter of what road, when it leaves the terminal station is clean, both as far as the railroad cars and sleepers are concerned, but the limited trains very rarely carry any coaches, and are used by the more cleanly class of our population, and such trains are a very easy matter to maintain in a clean condition; but trains that charge no additional fares, such as the M. K. & T. Flyers, usually have all classes of people, and no matter how clean a train leaves its terminal point, it becomes filthy after it is one night on the road. Passenger cars on the principal terminal stations, at each entry into such station, receive a thorough cleaning, the seats being blown with compressed air, in some places with as much as forty pounds of pressure, and the woodwork is washed with soap and water, at an expense of from 62 cents per coach, to \$2.50 per Pullman car.

Passenger cars that enter into the makeup of trains that are made up not at principal terminal points have neither the facilities, nor are they very often cleaned, and the seats, where they are covered with textile fabrics, as are the majority of seats in railroad coaches and chair cars, usually become a receptacle for diseases carrying micro-organisms. The dust that usually comes out from such seats upon a passenger sitting down is well known to all of you; these cars, in coming in touch with tuberculous germs, become the most to be dreaded contagion carriers,

for such cars are usually used by such of our population that do not give sufficient attention to personal cleanliness or comfort. Such passengers often travel whole nights in such cars, and when the body has the least resisting power, infection and contagion is most to be dreaded. It is an utter impossibility to even approximately figure the great part such filthy cars play in the propagation of contagious diseases, but the Interstate Commerce Commission claims (3) that there were, in 1906, 42,262 passenger cars in use which, according to the same authority, have transported during the year of 1906, 25,167,240,831 passengers one mile (4), and 797,946,116 passengers more than one mile; it then at least gives an idea of the great facility such dirty cars have of conveying contagious and infectious diseases to many of the many millions of passengers they carry.

The ventilation in passenger trains is of two types, (a) the artificial one, where the air comes into the cars through pipes, goes over the steam pipes under the seats, where it is somewhat warmed, and are regulated by the train crews, porters or brakemen. Such a system is in use on some of the Pennsylvania Railroad trains, and this system of ventilation is assisted by (b) the natural system, where the air enters through the doors, windows and window ventilators placed in the roofs of passenger cars. While the natural system has the advantage of always supplying the needed quantity of air in day time, at night, when the windows are closed, and especially during the cold or rainy seasons, there is not a sufficient amount of air in passenger cars, and the peculiar, heavy odor, full of perspiration, found at night in passenger cars while crowded with passengers, is due to no other cause but insufficient air supply. Another defect in the natural system of ventilation is that the air in cold seasons is usually too cold, and that when it does come into the cars it carries into the lungs of the passengers a too liberal supply of coal smoke and cinders, which very often are responsible for pulmonary and bronchial inflammations.

The heating of our passenger cars is very defective and is recognized to be such, the two prevailing methods of heating, that of the steam heating by steam supplied from the locomotives, is defective, in that it depends upon the train crews for regulating, and as this duty is strictly the train porter's, it is usually neglected, for on our American trains the porter usually acts as rear brakeman, and the regulation of the heat is entirely neglected. Would the porter be a train porter in the sense that no other duty was imposed upon him, this system of heating would yet be open to the criticism that is due to the fact that the heat is obtained altogether from the engine. It often happens that where the heat is needed mostly, due to the severe cold, as happens on all the roads entering Chicago, Omaha and St. Paul, also Buffalo, N. Y., the engine itself needs all the steam, and trains are often left without sufficient heat when it is mostly needed. I remember a very amusing incident that, for half an hour, was very unpleasant to me. I was on a Wabash train go-

ing through Canada, it was very cold and we were literally freezing, for the engine needed all the steam and the train was left without any heat. Some joker started the rumor that I was the president of the road, and another joker suggested that the passengers lynch me. No pleadings amounted to anything, until I finally proved to them that I was not even an official, under the plea that if I was I would not travel as a plain mortal, but would have my own private car. This argument satisfied the enraged passengers, and I live to tell this tale. The second type, that of heating by what is known as the Baker heater, does not differ from the ordinary stoves as used for household purposes. Where the car has two heaters, one at each end, there is enough heat, but one heater, as is usually the case, does not supply enough heat for a standard car. The best method of heating is the steam heating method used on the French Railroad, Paris-Lyons-Mediterranee, where, while the heat is supplied from the engines, it is also reinforced by heaters, but heating pipes that have regulators in the walls, and are regulated by the passengers themselves.

The illumination on passenger cars is in the same condition as the cleaning of the cars. Cars on the principal trains are well lighted; the Pintz gas is the most satisfactory light, as its flame varies very little. The electric light is usually too dim, and causes great strain on the eyes, and especially in women it often causes headaches. The cars that are oil lighted are usually half dark and have no pretense of being well lighted, and unfortunately a very large number of trains all over the country are yet lighted with oil or kerosene.

The water and ice supply to trains is the most serious problem, and next to the disinfection of sleeping cars (which I will consider under the head of disinfection) claims, and justly so, the most serious attention of the medical profession and the public authorities as well as the whole public. It deserves attention first, as to its source of supply; second, the manner of handling the water and ice in refilling train cars, and third, the receptacle through which both the water and ice reach the passengers.

The water and ice supply, as far as the source concerned in all cases, is such as the locality where such is supplied uses; hence, whenever there is any contamination of the water supply in a locality, especially with typhoid germs, such will be supplied to trains, and passengers become infected and carry the infection thousands of miles from the originating point, become the victims themselves and also convey the disease to many other people, and it is my opinion that this method of infection accounts for the frequent sporadic typhoid cases which cannot be, by the best efforts, traced to the source of their origin. What has been said of the water is yet more true of the ice supply. Where ice is used that has been produced artificially, the distillation of water will eliminate micro-organisms, but it is a well known fact that natural ice retains in itself micro-organisms

that the cold does not destroy, hence where natural ice is used, the source of the ice supply is a very serious matter, especially where such ice is obtained from sources into which empty the sewage from cities.

The receptacles for the ice and water consist of the tank in which the water is kept in the cars, and the cup from which the passengers drink. The open tank or tank with the covers that open into the the part of the car where the passengers are is to be condemned, due to the fact that it usually becomes the storage place for milk and other kinds of bottles for passengers desiring to keep milk or bere cold, and to accomplish this purpose the passengers put not over clean hands into the water tanks, and often dirty bottles, and of course if such passenger happens to suffer with any contagious disease, such contagious agency is conveyed to the water. This is corercted by the water tank that has been installed in many cars of the C. B. & Q., thanks to the wisdom of President Harris and Dr. Denny. The tanks are supplied with covers that lock, and the key is in the possession of the train crew only.

To show you that there are no words strong enough in which we should condemn the metal drinking cup, or even the glass supplied by the railroads on trains, I beg to call your attention to the cup I am now holding in my hand. Notice the walls and bottom are red with rust. You will also notice the stamped initials of the railroad company on this cup. Please pass it around, and to wake your interest in the matter, I beg to say to you that this cup is not an exception, but is the general use. I have, for the consideration of a quarter of a dollar cash, borrowed this cup from the train porter of the train on which we all came to Sulphur. Notice that when a person suffering from any contagious diseases drinks from this cup, how well a hiding place the bacteria find in this corroded cup. But is there any proof that micro-organisms have ever been found in the drinking cups on trians, some may ask.

To this question I would call attention to the recent literature on the subject. Moeller of Berlin is reported as having found tubercle bacilli, influenza bacilli, staphylococci on the edges of communion cups (5). Again, Kinyonn is reported (6) as having found pneumococcus, streptococcus, staphilococcus aureus and diphtheria bacillus once each in twenty-one drinking cups in sleeping cars, and the same experience was my own in St. Louis, and reported in 1904. From a consistent and continuous work of three years in the domain of railway sanitation, I am led to believe that, as a sanitary measure upon railways, the drinking cup should be absolutely abolished, and in official and in private reports to railroad executive officials, I have persistently urged the total abolition of the train drinking cup. Bear in mind that Kinyoun's experiences were all with sleeping car cups, which as a rule are smooth glass receptacles and give the least adhesive possibilities for the germ accumulation, hence imagine what we would find if we would examine this tin cup

in my hands, and from which we were expected to drink on our train.

The way of handling ice deserves attention. The general rule, and in the majority of cases, the ice is handled in the same negligent and careless way, and from a sanitary standpoint, even criminal way, as all our ice is handled in the cities; that is, the ice man handles it any way it is most convenient. When occasion calls for it the ice man in cities and on train platforms lets the ice lie on the ground, handles it with his hands, and his hands are very rarely clean and often even diseased. What is true of the manner of handling the ice is true of the criminal deficiency in the supervision of the source of the ice supply. Ice, when produced artificially, is at least bacteriologically clean, due to the process of water distillation, but ice supplied to our homes and trains, obtained from natural sources, is often more deadly than the sandbag in the hands of a highwayman, for you are all well aware of the fact that many pathogenic bacteria survive the freezing of water in ice, and when introduced into a favorable body will produce its disease, hence is a general sanitary precaution, natural ice should be used as little as possible, and the reports of the New York ice investigation amply justify my conclusions.

Upon several divisions of the M. K. & T. ice is handled in what I consider a strictly sanitary way. It has taken the co-operation of the great railroad man, Andrew A. Allen, vice president of that road, in order to accomplish it, but I am happy to say my recommendations have prevailed, and today ice is taken up with steel ice tongs, by a man in clean rubber gloves, placed on a specially constructed ice wagon; when on the wagon the ice is washed by a stream of water from a rubber hose, cut with a die, so that it produces an ice brick that enters the water tank without any further cutting, and thus eliminates the handling with the hands altogether. Unfortunately, while this method is inexpensive, it is hard to get railroads to leave the old way and adopt the one just mentioned, and the answer I have received from many executive railroad officers is amusing: "The matter is in the hands of such and such, and it is too small a matter for me to interfere." The irony of this answer is in the fact that men of culture and refinement, as the presidents, vice presidents and general managers of our railways as a rule are, have not yet learned the bitter lesson that between life and death, health and disease, the little things called the microbes play the principal parts. It is true bacteria are small, yet it is more dangerous to life than a derail when open on the main line.

Disinfection of depots, as a rule, is an unknown thing, even those depots that are by me placed in the A1 class are never disinfected, unless an epidemic is positively known to exist in the locality. Yet the very fact that the depots are the collection points of hundreds of individuals in all stages of health and disease should be a sufficient reason for periodical disinfection. I say without hesitation that, in the cleanliness of depots, our rail-

ways are far behind all European countries, with the exception of Turkey, and why the average American, who is cleanly by nature, tolerates such a condition, I admit I cannot account for.

The disinfection of cars is compulsory by law in a very few states. Thanks to Dr. George R. Tabor, late State Health officer of Texas, Texas requires the disinfection of cars when it is known that they have carried contagious cases, and the disinfection of Pullman cars on relay stations. This brings me to the consideration of the sleeping car from a sanitary view. In the United States we have three types of sleeping cars, the standard of two types, and the tourist. From a sanitary standpoint the tourist cars as used upon the Canadian Pacific going out from Boston across the continent are the most desirable sanitary cars in existence. They are upholstered with an imitation leather, have all smooth surfaces and are easily cleaned and disinfected. The Pullman tourist and standard of the old types are very dangerous from a sanitary point. The tourists are upholstered with straw and imitation straw, in the meshes of which all filth can accumulate, and no amount of blowing will blow such out, and such cars are very difficult to clean and almost impossible to disinfect. The standard Pullman car is of two types, one the heavy upholstered, with silk curtains on windows and doors, and is the highest type of an unsanitary car to be found. The heavy upholstery, while responding to the aesthetic taste of many passengers, defies all means of cleaning, and under favorable conditions will accumulate and convey pathogenic germs indiscriminately from the sick to the healthy passengers. An incident that happened in my personal experience is characteristic. I was returning from San Francisco, California, on a Santa Fe train. With me in the Pullman car was Mr. Fred Campbell of Oakland, California, once secretary to Mr. Metcalf, Secretary of the Navy. At some point in California a person sick, as I have later found, with the last stages of tuberculosis, was brought into the car, and died at or near Ash Forks. He was taken to the baggage car and the berth was made up, and at the next station given to a young woman with two children. I objected on what seemed to me to have been serious sanitary reasons, but the conductor claimed he was powerless, that it was his duty to sell every berth that was unoccupied. I finally introduced myself and told the woman that as a doctor, I believed it dangerous for her to keep the berth, giving my reasons, and the woman left the car. I believed then, as I do now, that if the woman with her children had remained in the berth, they would have had a fair opportunity to contract tuberculosis. This danger would not have existed in a car where there was not so much upholstery. The second type of the standard Pullman car is just the opposite of the one just described; the wood work is plain, with a highly polished surface; the curtains are rubber, and if it were not for the seat upholstery of velvet plush, this type of cars would be the ideal cars for sanitary reasons. They are easily cleaned and disinfected.

There is little left to be improved upon the Pullman method of cleaning cars, and what is not generally known is that a Pullman car gets the most scrupulous cleaning at every relay station. The car is entirely emptied and the bedding, carpets, seats and backs of seats taken out of the car and exposed to a thorough washing of the parts that can be washed, and left airing. The interior is thoroughly washed, and in Texas, thanks to the regulations of Dr. George R. Tabor, late State Health Officer of Texas, disinfection is compulsory, and the Pullman Company has adopted disinfection of cars as a routine work in most stations where cars are cleaned, and it is a pleasure to be able to say that the Pullman Company is today cleaning its cars so thoroughly that the cars are actually clean. This is true of every relay station for Pullman cars from the Atlantic to the Pacific, and from the Gulf to the Great Lakes.

The disinfection of the Pullman cars, while undertaken in good faith, is very defective. Dry formaldehyde gas is used for the interior, and formaldehyde in liquid form on sheets and the backs of seats, and it is done under the impression that such disinfection disinfects. My attention to the fact that formaldehyde gas, in the absence of moisture, has no germicidal effect, was called by Mr. C. B. Dudley, chief chemist of the Pennsylvania Railroad.

To verify Mr. Dudley's experience, I repeated his experiments in 1904 in the Santa Fe yards at Galveston, Texas, and my tests, in the majority of cases, were identical with those obtained by Mr. Dudley (7) who has reported every step of his work and results.

Disinfection of railroad coaches and chair cars is a very rare thing, and I do not know of any railroad company that has adopted a system of routine disinfection. The C. B. & Q. has taken that advance step, that whenever a well known contagious case is carried on a car, the next division after the contagious case has left the car, the car is taken out from the train, side-tracked and disinfected.

There is no sanitary supervision of dining cars, dining rooms and lunch counters. The physical condition of the majority of dining cars, taking the same comparison as that made for hotels, is good. The dining stations, especially of the Harvey and M. K. & T. systems, are kept clean, but there is nowhere any sanitary supervision. The lunch counters on the Harvey system are all in a very clean condition, but in the majority of other railways the lunch counters are in about the same condition as the depots.

We have, then, answered the first question.

First. The sanitary conditions existing on steam and (electric street railways and depots are bad.

Second. What share, if any, have railways in the spread of disease, can only be answered problematically, for there is no definite way of collecting any statistical data.

Third. Sufficiency or insufficiency of sanitary legislation, can be answered that specific sanitary regulations and legislation have so far been enacted in very few states. The leader of such states is Texas, followed by Wisconsin, Minnesota, Kentucky and a few others, but while the majority of states have no specific sanitary legislation, every state board of health has the power to enforce sanitation on railways, under and within the general police power of the state.

Fourth. Who is responsible for existing sanitary conditions on railways. In an offhand manner this question could hardly be answered. Fortunately, I have now at my disposal the following qualifications, which give me the authority to answer the fourth question:

First. A personal acquaintance of sanitary conditions on every railroad in the United States, Mexico, Canada and in every civilized country of Europe.

Second. The personal knowledge of the attitude towards railway sanitation of every president, every vice president in charge of operating, and nearly all of the general managers of our principal railways in the United States, from personal discussions of the question of railway sanitation.

Third. Many years of personal and careful study, with every possible facility, of the whole subject of railway sanitation.

My large experience, above quoted, compels me to say, without the least hesitation, that the responsibility for the bad sanitary conditions on our railways is primarily with our people (our traveling public); secondary with our public authorities, especially boards of health and police officers.

My reasons for placing the blame upon the above two, and not upon the railway companies are that, with the exception of Mr. Harrahan, at that time vice president, and now president of the Illinois Central Railroad, every executive railroad officer has shown the greatest interest and has extended every facility to me in my work. Especially was I assisted by Messrs. Phippley and Kendrick of the Santa Fe, Mr. Ramsey of the Wabash, Mr. Clark of the Missouri Pacific and Iron Mountain, Mr. Mohler of the Union Pacific, Mr. A. A. Allen of the M. K. & T., Mr. Calvin of the Southern Pacific, Mr. Smith of the New Central lines, and Mr. Atterbury of the Pennsylvania Railroad, and I have found not only a readiness, but in the cases of the New York Central, Pennsylvania and the Pullman Company, forward sanitary steps that surpass everything so far accomplished in sanitation even in European countries, where sanitary science was born. From personal knowledge I know that both Mr. Smith, recently general manager of the New York Central, and Mr. Atterbury of the Pennsylvania would not hesitate to make all necessary appropriations for perfect sanitary conditions, as can be obtained from our present knowledge of sanitation, but they, as well as other railroad managers, have to meet the following conditions:

First. A surprising ignorance of sanitation upon the part of our traveling public. People who are cleanly at home do not hesitate to expectorate on depot and car floors, and even where cuspidors are provided, the following incident in my own experience is characteristic of the disregard of cleanly habits while traveling: I was inspecting an M. K. & T. passenger car, one of the newest pattern, which is a beautiful work of art. The train was about to enter Austin, Texas. A man who had every appearance of a gentleman, as almost every man in Texas is a gentleman, was looking out through a window and chewing tobacco, but attracted my attention by taking in his head every time he wanted to expectorate and spitting on the floor. For this man it was actually easier to spit on the outside, but force of habit made this man do what is a sanitary crime. Incidents where ladies and gentlemen will sit by open windows, peel bananas and throw the peelings on the car floors happen every day, and it takes about three men chewing tobacco and reading newspapers to turn the finest car into a pig pen. The placing of milk and beer bottles in the water tanks, I have referred to, goes further to show the total indifference to the health of the traveling public by the very same public, and the indifference of the public authorities to the enforcement of sanitary ordinances. Almost every city has an anti-expectoration ordinance, and it remains yet for me to hear where such is being enforced by the police or police courts. Just think a police court, which is not a place of justice, but a revenue getting source for cities, where people are convicted, not on account of their guilt, but because the city needs the money; even in such places a violator on the public streets of sanitary ordinances goes free.

Last, but of the utmost importance to the development of railway sanitation, and which does very much harm to all people, is the recent ill feeling and unfriendly legislation that are to be seen all over the country, which tend to cripple the revenue of railways. I firmly believe that very few people in the United States are aware of the fact that a person travels better, with more comfort and less trouble on American railways than such person could travel anywhere in Europe, and if the cost of first class railway traveling in the United States and Europe are fairly compared, the cost is less in the United States than in Europe.

I know that this will seem like a plea for the railroads and as if I were digressing from my subject, but my plea is for the people and pertinent to my subject. We cannot have perfect railway sanitation unless we are willing to pay for such. It has been my experience that in Italy third class fare is cheaper than anywhere, but the discomfort is also proportionate. In Italy

the government is the owner of the railways, and the operating companies own the cars and motive power. The government keeps down traveling rates to the minimum, and the result is that a clean towel or even water on trains are unknown. France has a more liberal passenger rate, and conditions are somewhat better. My coming into contact with so many railroad executive officials has impressed me with the fact that, with the exception of the Long Island and New York, New Haven and Hartford Railroad, not a single railroad in the United States would be able to exist if it had to depend upon passenger revenue alone, and yet it seems to be the general tendency to cripple as much as possible railway revenue. My plea in pleading for better sanitation is, let us be just, let us pay, rather, a few cents more and get better service. I once had the pleasure of traveling a whole day with Mr. Howard Elliott, president of the Northern Pacific, and his words were the same that I heard from Mr. Tuttle, president of the Boston and Maine, and from Mr. Atterbury of the Pennsylvania: "Doctor, we need better sanitary conditions. The railroads are willing to do all in their power if the people would help and co-operate," and he was right. In co-operation will be found the ultimate solution of the decent sanitary conditions on our railways.

To obtain good, sanitary conditions on American railways, the following would be of material importance:

1. Abolition of the drinking cup.
2. Screening of all windows and doors of railroad cars.
3. Abolition of through car service; no passenger car should be in train longer than twelve hours.
4. Trains going through San Antonio, Texas, Arizona, New Mexico, Southern California and in the Carolinas and all other health resorts, should carry Pullman cars of the Canadian Pacific type above mentioned.
5. Water tanks to be made of the C. B. & Q. type above referred to.
6. All floors to be covered with non-absorbable paint.
6. Handling of ice and water as above described.
8. A medical sanitary officer, especially trained in sanitation, who should be in charge of the cleaning of all railroad cars and all sanitary matters, on each railroad line, and who should report directly to the head of the operating department, and preferably to the president of the road.
9. Supervision of the sources of the water and ice supply by the sanitary officers above described.
10. Abolition of the use of silk, wool or plush from railroad and pullman cars.

11. Placing of the inner doors in cars at a different angle from the outside door, so that the cold air would not reach the sleeping passengers at night.

12. The train porter shall have no other duties but to look after the physical cleanliness of the train cars, and not be a brakeman.

13. Adopting a system of heating which could be regulated by passengers and not have to depend upon busy train crews.

14. Adopting a system of ventilation that would keep out the coal smoke and gases from the cars while in trains.

15. Every car should be disinfected with formaldehyde gas in the presence of ample moisture.

16. The toilet rooms should be enlarged, especially for women, on Pullman cars.

17. Every railroad company should operate its own sleeping cars, and the cost of sleeping car accommodations should not be above what such service would cost at hotels.

The above is for railroads as their part. The public authorities should adopt such sanitary measures as would protect the sick from the healthy and the healthy from the sick. The medical organizations should educate the people to observe the same cleanliness in traveling as is usually observed at home.

I believe, to successfully obtain and maintain decent sanitary conditions in depots and on trains, requires the united efforts of the legislative bodies, the medical organizations, the railway managements, and the intelligent co-operation of the people. Such co-operation would result in mutual good for all concerned.

In conclusion, I believe it my duty to express my thanks to all who have assisted me in my work in railway sanitation, but especially are my thanks due to Mr. Kendrick of the Santa Fe, President Noblemaire of the Paris & Lyon et Mediterranee, and M. Morris Margo, engineer of the same line, of Paris, France; Commodor Theodor Koshut, vice director of the Strada Ferrata Mediterranee Italiana, Milan, Italy; Mr. Winchell, president of the Rock Island lines, and Mr. Joseph Ramsey, late president of the Wabash, and Mr. Clapp, his chief clerk.

Mr. President and members of the Oklahoma State Medical Association, I thank you for your kind attention. I have finished.

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*THE SANITARY POWER AS A**POLICE POWER OF THE STATE.*

(By Hon. R. L. Williams, Chief Justice of Oklahoma.)

The police power, in a general way and in its broadest acceptance, means the general power of a government to preserve and promote the public welfare, by prohibiting all things harmful to the comfort, happiness and safety of society, and establishing such rules and regulations for the conduct of all persons, and the use and management of all property, as may be conducive to the public interest.

It is inherent in the several states and remains with them under our federal government, to be exercised by the several state legislatures, such power only to be exercised by the congress of the United States when, under the federal constitution, the delegated authority excludes such state legislation.

In the case of the United States vs. Henry C. DeWitt, 9 Wall., 41-45; (76 U. S.) 19 L. ed. 594, Chief Justice Chase, speaking for the court, said: "That congress has power to regulate commerce with foreign nations and among the several states, and with the Indian tribes, the constitution expressly declares. But this express grant of power to regulate commerce among the states has always been understood as limited by its terms; and as a virtual denial of any power to interfere with the internal trade and business of the several states; except, indeed, as a necessary and proper means for carrying into execution some other power expressly granted or vested. * * *

"As a police regulation, relating exclusively to the internal trade of the states, it can only have effect where the legislative authority of congress excludes, territorially, all state legislation, as, for example, in the District of Columbia. Within state limits, it can have no constitutional operation. This has been so frequently declared by this court, results so obviously from the terms of the constitution, and has been so fully explained and supported on former occasions, * * * that we think it unnecessary to enter again upon the discussion."

In the case of *Compagnie Francaise, etc., vs. Board of Health*, 186, U. S., 37, 46 L. ed. 1209, Mr. Justice White, delivering the opinion of the court, said: "That from an early day the power of the states to enact and enforce quarantine laws for the safety and protection of the health of their inhabitants has been recognized by congress, is beyond question. That until congress has exercised its power in the subject, such state quarantine laws and state laws for the purpose of preventing, eradicating or controlling the spread of contagious or infectious diseases, are not repugnant to the constitution of the United States, although their operation affects interstate or foreign commerce, is not an open question. The doctrine was elaborately examined and stated in *Morgan Steamship Company vs. Louisiana Board of Health*, 118 U. S. 455. That case involved whether

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a quarantine law enacted by the State of Louisiana was repugnant to the commerce clause of the constitution because of its necessary effect upon interstate and foreign commerce. The court said:

"Is the law under consideration void as a regulation of commerce? Undoubtedly it is in some sense a regulation of commerce. It arrests a vessel on a voyage which may have been a long one. It may affect commerce among the states when the vessel is coming from some other state of the Union than Louisiana, and it may affect commerce with foreign nations when the vessel arrested comes from a foreign port. This interruption of the voyage may be for days or for weeks. It extends to the vessel, the cargo, the officers and seamen, and the passengers. In so far as it provides a rule by which this power is exercised, it cannot be denied that it regulates commerce. We do not think it necessary to enter into the inquiry whether, notwithstanding this, it is to be classed among those police powers which were retained by the states as exclusively their own, and, therefore, not ceded to congress. For, while it may be a police power in the sense that all provisions for the health, comfort and security of the citizens are police regulations, and an exercise of the police power, it has been said more than once in this court that, even where such powers are so exercised as to come within the domain of federal authority as defined by the constitution, the latter must prevail.' *Gibbons vs. Ogden*, 9 Wheat. 1, 210; *Henderson vs. The Mayor*, 92 U. S. 259, 272; *New Orleans Gas Co. vs. Louisiana Light Co.*, 115 U. S. 650, 651."

The correct rule is that the state has the exclusive police power except where, under the constitution, certain powers are delegated to the general government. Some of these powers are concurrent. But when exercised by the federal government it excludes the exercise of the same by the state. Until the federal government takes control and exercises such power in regard to the sanitary regulation relative to interstate commerce, the state may exercise same.

On the third day of March, in the year 1879, the congress of the United States passed an act styled: An act to prevent the introduction of infectious or contagious diseases into the United States, and to establish a National Board of Health. (20 U. S. Stat. at Large, p. 484). It is therein provided for a national board of health, to consist of seven members, to be appointed by the President, by and with the advice and consent of the senate, not more than one of whom shall be appointed from any one state, whose compensation, during the time while actually engaged in the performance of their duties under this act, shall be ten dollars per diem each and reasonable expenses, and of one medical officer of the army, one medical officer of the navy, one medical officer of the marine hospital service, and one officer from the department of justice, to be detailed by the secretaries of the several departments and the attorney general, respectively, and the officer so detailed shall receive no compensation. It is made the duty of said board to frame rules and regulations authorized or required by law and to make or cause

to be made such special examinations and investigations at any place or places within the United States or at foreign ports, as they may deem best, to aid in the execution of said act and the promotion of its objects. The prescribed duties of said board is to obtain information upon all matters affecting the public health, to advise the several departments of the government, the executives of the several states and the commissioners of the District of Columbia upon all questions submitted by them, or whenever, in the opinion of the board, such advice may tend to the preservation and improvement of the public health.

It is further provided that said board, with the assistance of the Academy of Science, which is thereby requested and directed to co-operate with it for that purpose, shall report to congress at its next session a full statement of its transaction, together with a plan for a national health organization, which plan shall be prepared after consultation with the principal sanitary organizations and the sanitariums of the several states of the United States, special attention being given to the subject of quarantine, both marine and inland, and especially as to regulations which should be established between state or local systems of quarantine and the national quarantine system.

On the 2nd day of June, in the year 1879, the congress further passed an act styled: An act to prevent the introduction of contagious or infectious diseases in the United States. Providing that vessels from foreign ports where contagious or infectious diseases exist entering our ports shall have proper bills of health; and further provides for inspection by medical inspectors, and further, for the co-operation of the national board of health with the boards of the several states. (21 U. S. Stat. at Large, pp. 5 and p).

In the beginning of civil government comparatively little attention for the prevention of diseases or the spread of the same was had. The 12 tables contain what appears to be a sanitary regulation, viz.: The prohibition of burials in cities. The Roman officer determined a proper cause of action for damages done any person for injury by matter thrown or poured from houses upon the public highways or streets. These restrictions, however, were confined exclusively to public places.

The earliest English sanitary regulation is by an act of the 12th Richard, II. c. 13, relating to nuisances in towns. Commissioners of sewers were first created by act of 8th Henry, VI, c. 2. Slaughtering of animals in walled cities was first prohibited by act of 4 Henry, VII, c. 3. After the great fire in London in 1666 building regulations were first established.

The enactment of laws, as a rule, are brought about by conditions necessitating the same. In other words, you might say that statutory law as a rule is the creature of necessity. Consequently laws looking to the preservation of health were not given much attention by law framers until the crowded conditions of humanity in cities and densely populated communities rendered it absolutely necessary. It is oftentimes that thoughtful men point out ways and blaze the paths in advance of their time. But it is seldom, if ever, true that legislative bodies walk in advance of their constituency.

It would be nothing strange for the wise physician or doctor of medicine who had drunk deep from the fountain of medical learning, and delved far into the rudiments of his science, that he should plan and design and suggest far in advance of his generation. But when it comes to enacting laws to make effective such suggestions and such thoughts, such laws must exist by the approval of the electors and are to be maintained by revenues collected from the people, and rarely, if ever, do the electors or the taxpayers respond in bringing about the enactment of laws until the actual, pressing necessity in fact exists.

During the ages of war, when clan fought clan, and the baron with his retainers fought his neighboring lord and retinue, and when one petty state made war upon another petty state, and one kingdom sought to subjugate and despoil another kingdom, fields and lands were more used then to be drenched with human blood than to be cultivated and increased in fertility by the aid of the careful husbandman and to raise products for the sustenance of man. Cities, than to contain a population supported by great industrial enterprises, were more usually used as fortresses as matters offensive and defensive against human attack. It is nothing strange that the human race did not marvelously multiply and increase under such a rule of force.

But when the ages of peace came, when wars had ceased to be so frequent, when civilized man no longer prides himself in his proficiency in killing his fellow man, though under the guise of war, the consequence is the increase in the world's population in a progressive ratio. And with such growth in population the question of sanitary regulation and the preservation of health becomes a practical question; consequently the demand for legislation therefor.

How is health to be preserved? The practical answer would be, first, by preventing disease—prevent the formation of the germ; next, destroy the germ. Hence we find the competent and skilled, the practical and the wise, first advocate the prevention of disease as the surest way of preserving health. And the natural, practical result is the advocacy of wise and efficient sanitary regulations, which is brought into play by the exercise of the police power. And when this power is brought into exercise, it should be handled by those that are trained and capable of exercising it. When our watch breaks we go to a jeweler; when our vehicle is wrecked we go to a mechanic; when we are in need of anything we go to those that either have the power to do what we desire done or have the knowledge to advise us about what we ought to learn. Upon whom must we look for wise and practical action in the highest and the best sanitary regulation of the state? To those that we look to when we are in the embrace of that dread enemy of the human race, disease. When we are racked with human pain and human suffering and physical misery, to whom, outside of the Great Spirit that is ever ready to sustain all mortal men, do we turn for aid? It is to him that is skilled and trained and learned in the science of human disease and human ailments. The man that belongs to this ancient and honorable profession should not only have the

highest conception of ethics, but should be practiced in morals as well as learned in his science. Whilst this profession is almost co-eval with the race of the human family, and with the growth of government and all of its machinery, and the consequent exercise of the police power of human government, we find that in the days of Henry VIII the right to practice as a physician or surgeon was restricted to members that had been trained in the medical institutions of that country, and as early as 1684, in the colony of New York, the admission to the medical profession was regulated by colonial legislation, and at this day and time there is not a single state in the Union in which the right to practice medicine is not regulated by statute.

Likewise the practice of embalming, in recent years, is regulated in a number of states.

The control of cemeteries and the regulation and establishment of new burial grounds, and the disposition of the bodies of dead animals, all these questions arise under the exercise of the sanitary power as a branch of the police power of the state.

The regulation by municipalities of the building of buildings and the requiring of permits for same, with a view that there may be light and air and other means of ventilation, and water supply, and plumbing arrangements; pure food laws to **prevent the adulteration of foods**; laws prohibiting the sale of cigarettes and intoxicating liquors, all come under this comprehensive head.

Likewise laws preventing the employment of child labor in mines and factories are upon the same theory.

Compulsory vaccination, the slaughtering of diseased cattle, the destruction of decayed or unwholesome food, the prevention of the pollution of reservoirs or streams which supply water for public use, the filling, clearing and drainage of lands which might otherwise create malaria or other diseases, the prohibiting of smoking in crowded halls, in trains and depots; the exhumation and removal of the dead, all of these matters are regulated in most of the states under the head of the sanitary power.

Such regulations in the interest of public health and the public welfare, however, must be reasonable and not interfere with the liberty, business and property of the citizen more than is requisite to secure the proper and lawful object in view.

The protection of persons from disease calls, in many respects, for the combined action of society, and the pressing need of such protection makes it unwise to wait for, or to entirely rely upon voluntary combinations of effort. The consequent necessity of state activity is brought into play for the safeguarding of health by preventive and other arrangements which the state may bring into play in a proprietary capacity for the benefit of the public, and the same time regulating, compelling and restraining private action for all like purposes. A great amount of police regulation is justified upon this ground, and the state is readily conceded more incisive powers than despotic governments would have dared to claim in former times. But in those days these powers were exercised for the aggrandizement and

self emulation of the individual at the expense of the subjects. Such power exercised by the commonwealth for the preservation of health, the promoting of human enjoyment and happiness, conversely, is for the benefit of all the subjects.

The board of health, as a part of the police power of the state, may cause to be placed restraint upon persons to guard against the introduction or spread of contagious or infectious diseases, by what is usually called quarantine regulations.

Restrictions in the way of prohibiting marriages between near relatives, as, for instance, between uncle and niece or aunt and nephew, or between first cousins, whilst it is different in nature, as it creates merely a relative and not an absolute impediment, it is exercised under the police power of the state with a view to the promotion of the health and the happiness of its citizens.

The exercise of the fullest control over the disposition of dead bodies and the burial of the same, or the transportation of corpses, is under the same theory.

Proper sanitary regulation can only be obtained by the earnest co-operation of the citizenship. It is one part to devise, another to execute. With the increase of our population there are ever incident dangers to health, and the consequent necessity for safeguards and preventatives. This can be done only by wise legislation and earnest co-operation and practical execution of the same. Every being should realize that by his own efforts, by his own regard of the laws of nature and the ethics of nature, with a purpose that the germs of disease shall not be permitted to form and come in contact with the physical life of man, can health be permanently had.

Whilst the medical profession is entitled to just financial reward for its labors, and every person should accord them that compensation, yet there is a higher compensation. Every physician, every doctor of medicine and every surgeon—skilled and efficient and proficient in their art and science—are linked with the destiny of many a human life, and have kept them as sojourners on this mortal shore, at times indefinitely. They have relieved human suffering and appeased human pain. The consciousness of this skill and this power is of itself a great reward, and when you, as members of this honorable profession, annually assemble in accordance with your ethics, that all knowledge of your science may be used for the benefit of humanity; that it shall not be stifled or secreted and permitted to be hoarded by any one man that he may gain money thereby solely, but that it shall be imparted for science's sake and to bless mankind. It should be the purpose of every being to encourage knowledge and skill in every profession, to rejoice whenever the curtain of darkness of human limitation is turned back and a new discovery made in science that may lengthen human life, prevent disease and for the time being baffle death. And this commonwealth, in the wise exercise of its police powers, should ever walk hand in hand with science and knowledge in seeking to preserve the health, comfort and welfare and happiness of the people therein.

*THE UNITED STATES PUBLIC HEALTH
AND MARINE HOSPITAL SERVICE.*

S. B. Warren, M. D., Surgeon, United States Public Health and Marine Hospital Service.

The evolution of a public health service from a marine hospital service seems strange to a casual observer, but, upon closer observation, this does not appear so strange, but rather natural.

In the early days the doctors of the Marine Hospital Service, in attending the sailors, observed the epidemic diseases as they occurred among them. Just as, at that time, the sail vessels were the common carriers of the world's commerce, they were, also, the common carriers of epidemic diseases. The doctors observed this, began to study them, and, naturally, thought of quarantine as the only remedy; being the first experts on the ground, the enforcement of this quarantine fell to their lot.

At first the hospitals were confined to the Atlantic coast but, as this great Western country developed, the Marine Hospital Service moved with the shipping up the rivers to the lakes, occupying the principal river and lake ports, then moved on to the Pacific coast; thus, when the railroad came to take its place as a common carrier, the Marine Hospital Service was established throughout the United States and had accumulated knowledge of epidemic diseases and practical methods of combating them.

At about this time the Civil War came on, everything was unsettled, and the hospitals were taken over by the military authorities of both sides for use as military hospitals. After the war, the reorganization of the service was taken up, and in 1871 a law was passed placing all the hospitals under one head—a supervising surgeon, stationed at Washington.

John M. Woodworth was the first Surgeon General, and it was not long before he began to turn his attention to public health matters. He issued his first circular on this subject in 1874. Additional circulars were added until, in 1878, Congress passed a law turning over national quarantine matters to the service. This law, however, carried no appropriation, so very little was done. In 1879 Congress created the National Board of Health and turned over quarantine and public health matters to it, making a large appropriation. For four years this continued, when the Board lapsed by limitation of the Act.

In 1883, the Marine Hospital Service again took charge and began to construct a quarantine service and, later, a public health service. In 1888 Congress passed an act to perfect the quarantine service, and carried with it an appropriation for building several stations. At the meeting of the American Medical Association of that year, Dr. Davis read a paper stating that the Marine Hospital Service had now grown into a public

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health service; that whereas it was originally established as an act of charity to a heedless class, that was now only one of its duties; and, while that was a very important and ably managed function, it was now a Public Health Service of genuine merit.

Other laws were enacted from time to time, adding further duties to the service. Among these may be mentioned the act of 1890, to prevent the introduction of contagious diseases from one state to another; the acts of 1893 granted additional quarantine powers and imposed additional duties upon the Service, and also provided for the examination of alien immigrants by officers of the Service; the act of 1899 authorized the appointment of a commission for investigation of leprosy; the act of 1901 appropriated for a laboratory for the investigation of infectious and contagious diseases and other matters pertaining to the public health; and the act of 1902, to increase the efficiency of the Service, changed its name and created a Public Health Bureau.

This gives, briefly, the stages in the evolution of the Public Health Service, and, to quote from Surgeon General Wyman's last annual report:

"It would seem that Congress has established a Public Health Bureau with a broad foundation, but, more than this, it has provided a service whose personnel consists of trained medical and scientific officers devoted only to the interest of the public health."

THE PERSONNEL.

When the Service was established, in 1798, and the first hospital built at Norfolk, the officers were appointed among the local physicians of the city wherever the hospitals were located; but when the Service was reorganized in 1871, examinations were required and the officers were appointed to the general service. In 1889 a law was passed regulating this, and the officers were commissioned by the President.

There are now 129 commissioned officers, three special scientists in the hygienic laboratory, 255 acting assistant surgeons, 47 pharmacists and 851 employes.

QUARANTINE.

The Service now operates the quarantine stations for all the Atlantic, Pacific and Gulf coasts, except Boston, New York, Baltimore and Texas. (A site has been selected at Galveston, Texas). The Service maintains the same quarantine system for the Philippines, Porto Rico, the Hawaiian Islands and Panama.

To do this there are 43 domestic and 22 insular stations under control of the Service officers. As aids to this service, officers are detailed to the fruit ports and the principal ports of Japan and China, and one each at Calcutta and Naples, and consuls at all the foreign ports are required to report the presence of any quarantinable disease and issue bills of health to ships departing for United States ports.

The ports of Boston, New York, Baltimore and Texas are

subject to inspection by the Service and have to enforce the national quarantine regulations. All the stations are equipped with everything that may be required for the proper administration of the quarantine necessary at that port, and any vessel that may arrive can be handled at short notice for any of the infectious diseases, the sick sent to hospitals, those exposed isolated and the vessel disinfected and allowed to enter with very little delay. The object being the least possible interference to commerce with safe methods as now recognized by recent scientific investigations. Quarantine has thus become a factor in the development of commerce instead of a forty days delay, as the derivation of the word implies.

Regulations are fixed by the Department for the government of all quarantines, including state and municipal stations. Under these regulations a ship comes under the observation of an officer of the government at her port of departure where, before her bill of health is issued by the consular officer, certain requirements as to cargo and sanitary condition of the ship must be complied with. In some instances this necessitates a disinfection. At sea she must live up to required sanitary standards, and, on her arrival, be inspected by a medical officer before she is given pratique, and this is not given if there is any danger of her carrying an infectious disease into her port of entry.

From this it will be realized that the ramifications of the quarantine service extend throughout the world and it would hardly be possible for any vessel to arrive at any port of the United States from an infected port without notice of such infection reaching her port of arrival ahead of her, and the medical officer in charge of her inspection knowing it before he boards her.

HEALTH REPORTS.

In the interest of the public health and quarantine service, the bureau publishes weekly reports of the health conditions of the world as reported by the state and municipal health authorities, United States Consuls and the Service Officers wherever stationed. These reports contain the morbidity and mortality statistics of the states and cities of the United States, the mortality statistics of foreign cities and countries, tables of epidemic diseases, wherever located, and reports of the public health work of the Service; also, any important discoveries or investigations directly bearing on public health matters.

These reports are sent to all quarantine stations, officers of the Service, state and municipal health officers and other sanitarians. Wherever anything of a special character, such as a report on the prophylactic value of vaccination or plague investigation, is published, reprints are made for distribution into the field of their greatest usefulness. In this way the bureau is carrying on a continual campaign of education on some subject.

HYGIENIC LABORATORY.

One of the most important institutions of the Service is the laboratory for the investigation of contagious and infec-

tious diseases and other matters pertaining to the public health.

It was first established at New York in 1887; later it was moved to Washington, where it occupied a part of the bureau building. In 1901 Congress appropriated a site and \$35,000 for a building; it now occupies this, but has outgrown it, and Congress has made another appropriation of \$75,000 for additional buildings. These should soon be completed, when there will be plenty of room for present needs.

The work of the laboratory is distributed among four divisions, each with an expert chief, and a director over all; the latter is aided in planning the work by an advisory board of renowned laboratory men, and all under the direction of the Surgeon General. The result of the work is published in bulletins.

It would be impossible, in a paper like this, to tell of all the work—even to enumerate it. That of examining vaccines, serums and allied products for purity and potency probably appeals most directly to the general profession; an officer inspects the laboratories where these products are manufactured, and, if the establishment is not up to the standard as required by the regulations fixed under the provisions of the act of July 1, 1902, the license is not granted; or, if the license has already been issued, notice is given that the license will be revoked if the defect is not remedied. In addition, samples are bought in the open market and examined in the laboratory for purity and potency. Standards of strength have been established by the laboratory for several of these.

In addition to the officers who are stationed at the laboratory for research work, other officers are detailed there, temporarily, for instruction in laboratory methods, so that they can pursue this work in connection with their other duties at the various stations of the Service. The value of having such a laboratory to refer all material collected in the field for investigation by men skilled in such work cannot be estimated.

IMMIGRANT INSPECTOR.

Every immigrant must be examined by an officer of this Service before he is landed. The magnitude of this work can hardly be realized until it is explained that over one and a quarter million were examined last year, and that there are engaged in this work twenty commissioned officers and forty-one acting assistant surgeons. Where possible, these immigrants are examined at the port of departure by an officer of this Service, but re-examined again on their arrival in this country.

This examination is for the exclusion of those who are liable to become a public charge, and those suffering from a dangerous contagious disease, in this way conserving the public health interest, as well as preventing the landing of a large number of sick or disabled aliens who would very soon fill up the charitable institutions of this country.

MARINE HOSPITALS.

The Service owns and operates twenty-one marine hospitals and maintains 123 relief stations where the beneficiaries of the Service are treated. The beneficiaries of the Service are sea-

men of the United States merchant marine, officers and crews of the Revenue Cutter Service and the Light House Establishment, seamen of vessels of Engineer Corps of the army, and keepers and crews of the Life Saving Service.

Last year over fifty-five thousand patients were treated at the various stations, besides a large number of physical examinations made for the various government services.

This medical and surgical work in the hospitals, together with the opportunities for postgraduate work afforded in the large cities, serves to keep the officers abreast of the progress made in the profession. On the other hand, if the Service was purely sanitary and quarantine in its functions, the officers would soon grow rusty in general medicine and lose that skill in diagnosis which is always needed in their work.

These stations are located in thirty-four different states, District of Columbia, Alaska, Philippines, Porto Rico, Panama and the Hawaiian Islands; seven are stationed on revenue cutters that cruise in Atlantic and Pacific waters.

This gives an idea of the scope of the Service; with its officers scattered over the globe, together with the consular reports from all the principal cities of the world, it is prepared to carry on investigations of any of the problems relating to public health matters of any nature or locality. Not only this, at a moment's notice the Surgeon General is prepared to send to any part of the United States a number of trained sanitarians and laboratory experts to begin any kind of scientific campaign against any epidemic disease.

This description of the personnell, equipment and various duties of the Service gives a fair idea of its preparedness. This has been obtained by years of earnest effort, the expenditure of large sums of money and the rigid selection of its officers.

It now remains to tell of the work of the Service, what it has done, what it is doing and what it hopes to do.

SANITARY CONFERENCES.

Under the Act of July 1, 1902, the Surgeon General is authorized to call an annual conference of the representatives of the state boards of health. Six of these conferences have been held; at the last, twenty-one states and the district of Columbia were represented. Also, one special plague conference and one quarantine conference have been called by the Surgeon General.

This brings together the health authorities, they become acquainted, have greater confidence in each other and direct their efforts along the same lines; the beneficial results are seen in the work at New Orleans and San Francisco at the present time, where national officers received and continue to receive the hearty support of all local authorities. Contrast this with the condition of affairs that obtained in San Francisco in 1900.

Other conferences are participated in by the Service. Among these may be mentioned the International Convention of the American Republics, which met in the City of Mexico last December; the International Congress of Tuberculosis, to be

held in Washington in September, and the International Congress of Hygiene and Demography, held at Berlin last October.

These conferences accomplish the same results for international health authorities as the national conferences do for the states. They, also, bring together the men who, in their department, are at the front of the profession and disseminate knowledge and methods of work and fire all with an enthusiasm without which no undertaking can be a success.

YELLOW FEVER.

In considering the work on special diseases, the first one that comes to mind is yellow fever. It has probably brought the Service more prominently before the public eye than any other one thing, and the work on prevention of this disease led to the creation of a Public Health Service of the Marine Hospital Service.

The first annual reports contain articles on this subject, and the first quarantine work was done to prevent the importation of this disease into the Southern states and, since 1883, every epidemic has found the Service doing what it could to prevent its further spread, and several of the officers have sacrificed their lives in this duty.

A decided victory over this disease was not won until 1905 at New Orleans, and that was, indeed, a decided one, for, as is well known, it had gained a foothold in that city by the middle of July of that year; and, where it began early in time past, it always spread in spite of all efforts.

The work of the Service, with Surgeon White in charge, at New Orleans, is too well known and too recent to need a detailed account here. He assumed entire charge of the work of eradication on August 6th, and the week following over four hundred cases were reported; one month later the number of cases had dropped to two hundred a week, and, on October 26th, the epidemic was over and the President visited the city. Twenty-four commissioned officers were sent by the Surgeon General into New Orleans and twenty-eight acting assistant surgeons were appointed.

The United States Weather Bureau reported for that year its first light frost on December 4th, so you can judge how long the epidemic would have raged.

The magnitude of this work may be conceived of from a summary of what was done.

Population of the city of New Orleans.....	325,000
Total area of the city, square miles.....	196
Area actually occupied, square miles.....	44
Total number of cases of Yellow Fever.....	3,404
Total number of deaths from Yellow Fever.....	452
Total number of house to house inspections.....	269,128
Total number of rooms disinfected.....	55,151
Total number of miles of gutter salted.....	753
Total number of cisterns screened and oiled.....	68,000
Total number of cars fumigated (freight).....	33,565

Total number of pounds of salt used in gutters.....	2,998,000
Total number of gallons of oil used in cisterns and gutters	67,375
Total number of pounds of sulphur used.....	448,000
Total number of pounds of pyrethrum used.....	5,000
Total number of officers employed at one time.....	73
Total number of men employed at one time.....	1,323

In addition to this, the Service officers were at work in other localities wherever the fever occurred; detention camps. a coast patrol and a train inspection service were established.

A campaign of education as to measures necessary to prevent yellow fever was carried on all over the South, where possible, officers were sent to give talks on the subject, and a circular was prepared in the bureau and sent to every postoffice in the states of Louisiana, Mississippi, Texas, Arkansas, Alabama and Florida. So great was the success of this campaign that Congress, at its next session, passed an act establishing national quarantines at all the principal Gulf ports, where not already established, putting them under the control of the Service.

Since 1905 there has been no epidemic of yellow fever in the United States, but the Service has continued its investigations into its cause and the methods of mosquito warfare. The yellow fever institute of the Service has issued bulletins on the subject and an officer has investigated the habits and the life cycle of the *Setgomia Calopus*, proving by experiment that the eggs in a dry state can survive a Southern winter, and in this, as well as hybernation, propagate their kind the following spring. Various insecticides were experimented with, but none were found as efficient as sulphur.

From the present knowledge of the disease a panic should not follow the announcement of a single imported case of yellow fever in a city, and city authorities should not hesitate to make announcement for fear of such a panic. It is better to treat all doubtful cases as yellow fever, with all the proper precautions, even though they may turn out to be some other fever; treated in this way the disease will never get a firm foothold in any town. Under the strictest quarantine, a case may gain admission into a town, but, recognizing the mosquito as the only carrier of the disease and proceeding upon that basis, no alarm need be felt and no business paralysis follow.

The matter of mosquito extermination and proper sanitation is a matter for local health authorities, but it is wonderful what can be accomplished when gone about in the right way, and it is hoped that the campaign of education instituted by the Service in 1905 had more than a temporary effect and that the cities in the yellow fever belt will attend to these matters before the appearance of the fever in their midst.

PLAGUE.

Plague reappeared in San Francisco last year, a little over three years after the last case of the epidemic which began in 1900. The success of the Service in suppressing that outbreak

was so decided that no opposition has been encountered at this time. As the first cases appeared along the water front, an outgoing quarantine was immediately put on by the Service and all outward bound vessels were fumigated for rats, and, at all domestic ports on the Pacific, vessels from San Francisco were inspected and, where necessary, were redisinfecting for rats.

The work of eradication was at first undertaken by the local authorities, but on September 4, 1907, a request was made to the President, by the Mayor, for the federal government to take charge. The Surgeon General was, therefore, instructed by the President and Secretary to comply with the request. An officer, who was acting as sanitary director of the Jamestown Exposition, was immediately sent to take charge, and a corps of eight commissioned officers were ordered to report to him for duty, and he was authorized to appoint local physicians as acting assistant surgeons to assist. Laborers were employed and the organization completed for a long campaign against the disease, for, from its mode of propagation by fleas and rats, the fight must necessarily be a long one; especially so in this case, as the foci of infection were widely scattered.

A summary of one week's work will give an idea of what is being done.

Sick inspected.....	23
Dead inspected.....	132
Necropsies held.....	4
Premises inspected.....	22,629
Houses disinfected.....	215
" destroyed.....	24
Buildings condemned.....	10
Nuisances abated.....	4,861
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Rats found dead.....	655
Rats trapped.....	6,767
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Total rats taken.....	7,422
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Rats identified:	
Mus decumanus.....	5,418
" rattus.....	136
" musculus.....	1,479
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Total	7,033
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Bounty rats received.....	4,328
Poisons placed.....	175,604
Rats examined bacteriologically.....	4,594
Rats infected with bacillus pestis.....	3

Up to date there have been 159 cases and 77 deaths; the last case was reported February 8, 1908, though rats infected with plague continue to be found. The work goes on with the same energy and care as when cases were occurring among men.

A case of plague was reported at Seattle, Washington, October 16, 1907, and, upon request of the Governor and health authorities of the state and city, and approval of the Secretary, the Service took charge and sent an experienced officer who, with the aid of the local authorities, organized a thorough inspection and disinfection service. No case has occurred there since October, 1907, but two rats infected with plague were found in April, 1908.

In addition to the local work, the Bureau has published literature on this subject and has issued a reprint on plague investigation in India. The officers of the Service, health officers, and sanitarians all over the United States have been requested to send rats and fleas to Hygienic Laboratory for identification; this is for the purpose of collecting data as to the locality in which the plague might spread if once imported, because it is known that the rat flea (*Pulex Pallidus*) can convey infection from rat to rat and from rat to man.

SMALLPOX.

Smallpox has received its share of attention by the Service, and tables are published in the public health reports of its occurrence wherever reported. Quite a number of reprints on this subject and vaccination have been issued. Whenever the proper authorities of a state request it, experts on this disease are sent to any place to settle doubtful diagnoses and advise as to methods to suppress it. In view of the anti-vaccination discussion that we hear more or less of now, it is of interest to know that, since the enforcement of the Act of July, 1902, of the regulation of the manufacture and sale of vaccine, serums and allied products, infected arms are almost a thing of the past, thus depriving the anti-vaccination people of their only reasonable argument against this preventive measure.

LEPROSY.

In 1899 the Service, through the Leprosy Commission, composed of officers of the Service, began the investigation of leprosy. As a result of the report of this Commission, Congress passed an act appropriating for a permanent investigation station at Molokai, Hawaii. This station is now being constructed under this authority, and the Director and his assistants are now on the ground making preliminary investigations.

CHOLERA.

At present, in the United States, cholera is only of interest from a quarantine standpoint, but it is present in the Philippines, and officers stationed there are engaged in the problems of its suppression and prevention of its spread.

This concludes the description of the work of the Service on epidemic diseases, as prescribed by the quarantine regulations, and leaves for consideration those diseases which are of more general interest and of vastly more importance because they are always present in nearly every locality and are claiming their tens of thousands where the above named diseases claim only their thousands.

If the United States Public Health Service could eradicate

tuberculosis and typhoid fever in the United States, as it did yellow fever in New Orleans in 1905, and prevent its reintroduction by its quarantine service, the resulting benefits to this people would be beyond computation.

This may be an ideal and never attained, but it is worthy of the efforts of all, not only of the United States Public Health Service, the state health authorities, and the municipal boards of health, but of every doctor and every citizen. It is only by the combined effort of all that we may expect to make any appreciable progress in that direction.

TUBERCULOSIS.

In its work on tuberculosis the Service is somewhat handicapped for the lack of special appropriation, but something is being done and preparation is being made to take this work up in real earnest. At the sanatorium at Fort Stanton, New Mexico, a large number of the beneficiaries of the Service are being treated and a great deal of valuable data is being collected from the results obtained. A regulation of the Service requires isolation of these patients in separate wards in all other marine hospitals until they can be transferred to Fort Stanton.

The Bureau is collecting all the data obtainable and encouraging officers to make investigations wherever possible. Through the Board ordered by the President of the Surgeons General of the Army, Navy and Public Health Service, regulations for its control were drawn up and promulgated through every department of the national government. These regulations covered directions for the employes, care of public buildings and inspections of public buildings by Service officers. Failure to comply with these regulations by employes will be considered ground for dismissal from the government service.

There is a bill before Congress embodying the necessary authority for extending this work, which, with the necessary appropriation, will place the Service in a position to proceed on a much broader scale. Of late there has been such insistence on the part of the public that more be done, that the time has come for decisive legislation. This condition has come about through the campaign of education that has been made by so many societies and individuals that the public is thoroughly aroused and no longer can there be any quibbling as to the necessity for action on the part of the Federal authorities. The President, in his message to Congress, discussed this question and recommended action.

TYPHOID FEVER.

During the past year officers have made investigation of typhoid in the cities of Washington, D. C., Savannah, Ga., and Charlotte, N. C. In the case of Washington, a board of officers was detailed and has made investigations of such a character that the bulletin publishing the result is of interest to other cities. So many elements in the spread were found that were hitherto paid little attention to, that the board asked to be continued for further investigation and report.

The investigation by this board brought up the question of the milk supply, and the President and Secretary directed the Surgeon General to invite the co-operation of the Bureau of Animal Industry and Chemistry of the Department of Agriculture in investigation of milk from the farm to the consumer in relation to public health. This investigation was so extensive and thorough that it has proved to be of value to all the large cities in the United States, and the laboratory bulletin publishing the result has had a wide circulation and is in great demand by those interested in this subject.

Questions of this character are now beginning to receive the attention of the Service. They are the vital questions for all public health officials; they bring up the question of diseases of infancy, typhoid and tuberculosis, and, going a step further, disease carriers in general. All health authorities must take up these questions and do practical work; the time for discussion is past; actions and results are demanded by the thinking public in this as well as in all other departments of life. Up to the present time, the Service has been limited in its work on these subjects to laboratory investigation, but the Surgeon General, in his last report, insists on a broader field, more money and more men.

Other diseases have received attention. The work on hook worm disease in Porto Rico and the southeastern portion of the United States has demonstrated that the disease is widely distributed and accounts for a large per cent of the anaemias in those localities, and can be suppressed, it being due to soil pollution.

GENERAL SANITATION.

With the present condition of commerce and travel, as state lines are beginning to be lost sight of and interstate traffic assuming such enormous proportions that Congress has passed measures for its control, realizing that the states could not deal with the questions at issue; so the question of interstate health problems are bound to arise and are already attracting attention.

The milk supply of large cities is now no longer a municipal or state question, coming, as the milk does, across state lines for the cities' supply. In time past it never occurred to anyone to question the right of the city to drain its sewage into the river on which it was located, polluting its waters and carrying disease to the towns below. This question of pollution of streams is now fast coming to be one of the foremost problems of the day, and cities are spending millions on their water supply and drainage systems. This solution also brings up interstate health questions for settlement.

The river and lake steamers and through express trains take on their ice and water supply wherever convenient; I have seen the cook and assistant cook of the same lake steamer, one after the other, come to the hospital with typhoid, and it is uncertain how many cases could be traced to that one steamer.

These and similar questions are the problems that are receiving the attention of the Service.

One has only to read Surgeon General Wyman's article on "The March of Sanitation" to find the motive power of all this progress and to know why the Marine Hospital Service has evolved the Public Health Service. Since 1891 he has been at its head and this has been his life work and sole ambition, and the younger officers coming into the Service have, by his example and precept, very soon become fired with the same enthusiasm, until now the whole personnel seems a unit in its effort for the advancement of the Public Health Service. Through his efforts in directing the work of the Service along these lines, the Service stands forth as a complete whole and commends itself to the nation a public health service worthy of the confidence of the American people.

LEGISLATION.

The measure now pending before Congress, which has been referred to before, is one prepared by the Surgeon General, and, if it is enacted into law, will greatly extend the work of the Service and give it authority, "with approval of the Secretary, to make special investigations into the prevalence of tuberculosis, typhoid fever, rabies and other diseases affecting man, the conditions influencing their propagation and spread, and methods necessary for their prevention. The investigation will include housing, occupation and disposal of waste as they affect the public health, and co-operate, on request, with states in their measures for the protection of the public health."

To further this work, the bill provides for the establishment of a school at Washington for health officers. This can be done with very little additional expense in the Hygienic Laboratory, where every facility for teaching such subjects is at hand. This would be a further means of bringing the state and municipal health authorities into closer relations with the national, for the measure also provides that officers of the Service shall attend the same school. The advantage of such a training is too obvious to require argument.

Another section authorizes the investigation of the pollution of interstate streams and recommendation for the necessary legislation to remedy same.

There is nothing in this bill to interfere with the work as now being done by the state and municipal authorities, but rather to take up the nation's share of the work in a manner commensurate with the resources of a world power like the United States. The field is a broad and altruistic one, one on which can meet the officers of town, state and nation and nations of the world; meeting thus together on common ground, without regard to nationality, with one common object—the health of the world, they lose sight of self, of the small things of life, and are filled with ideals of what can be done for humanity.

"ISTS AND ISMS."

BY DR. CHAS P. BROWNE.

The doctor is made of a man and must be considered, primarily, as a man, with all the attributes of a man; the emotions, sensibilities, impulses and ambitions.

In the present consideration we shall look into those conditions which generally obtain, while allowing the exception which is supposed to prove the rule, therefore if any shall desire to exclude himself, individually, from the statements herein contained, he may do so, but we shall not permit him to take all his brethren along with him.

The die is usually cast, the Rubicon crossed, and matriculation in some medical college accomplished before the matriculate is mature in body or in mind and before he has definite ideas of what he is assuming. He takes with him a more or less indifferent preparation, with or without adequate preliminary education; with or without a literary or scientific degree; with or without a just and liberal view of his own rights and immunities or those accorded to others by right of birth, civil, political or military position; with or without a perception to discern and to discriminate between the crude, the ignorant, the coarse and dissolute and the refined, cultured and intellectual; with or without the power to appreciate another's condition and position. Finally, the matriculate is or is not endowed with that native ability, refinement and discretion of character and association that sees, interprets, appropriates and uses shades of distinction, graduation of position, personalities and character. He has or has not an understanding of the words "Doctor of Medicine." Such is the material from which the doctor is made.

The making of the doctor is an interesting process. The matriculate hears much of glorious conquest and of victorious achievement; he hears of medical heroes who have placed all upon the altar; in war, on the battlefield, in the field hospital, upon the high seas in naval fleets, and in naval engagements; of his untiring work in pestilential stricken camps; of his heroic perseverance and unbiased investigation, aided by nursing more or less efficient; of his collation of phenomena of diseased conditions, and of his intelligent deductions.

He hears of his martyrdom; of those physicians who pioneer in new places and in foreign lands; of his wonderful achievements in Cuba, where the Yellow Jack has been banished from the land by his painstaking and fearless use of brains; of the herculean efforts and the results of his devotion to science in the Philippines, and of the marvelous reclamation of Panama from disease and death.

He hears of the unflinching attention to suffering humanity in epidemics of contagious and infectious diseases.

He is taught to look with swelling heart and liquid eyes upon the physician's philanthropy, and hears on every hand of his charities, both of his time and of his substance, and sees the dignified doctors who daily
(Read before the Central Oklahoma Medical Society at Chickasha, Oklahoma, July 14, 1908.)

command handsome fees from aristocratic patients, leave all this and earnestly climb creaking stairs, amid foul odors and fouler lives, to relieve some poor soul upon whom the finger of anguish rests heavily, or goes with him down dark, noisome passages to the dungeons beneath the street, there to lend a helping hand to those who can no longer help themselves.

He hears it stated, reiterated, substantiated and never questioned that the doctor never falters, never turns back on danger, and has never shown the yellow while facing disease or while practicing his profession; that a coward has never been licensed to the practice of ethical medicine, and that the profession is synonymous to honor, uprightness and integrity. Such is the general training of the doctor.

In class he advances from the matriculate to the senior studies and hears from each instructor of few incurable diseases, but of infallible remedies and combinations many, that is, if the diagnosis is properly made out and all the adventitious troubles are eliminated or ignored, and all the essentials, even though far-fetched, are accounted.

In every specialty he is taught until he verily believes he is capable and that he carries within himself as complete knowledge as the instructors, or, in other words, the aggregate sum total of his Alma Mater, and fondly looks forward to the time when he will have shown the world his prowess and is called to fill an honorable position in this or some other medical college, there to impart his knowledge in a clearer manner, in more concise terms and terse verbiage than now is and has been prevalent.

Such is the doctor when he is graduated.

All he has heard is true, and were he called upon to listen to a recital of all the acts of kindness, charity and heroism done by medical men, the world would grow old in the telling of the tale. Too much praise cannot be spoken, too many songs cannot be sung, too many nor too eloquent eulogies cannot be pronounced—but, let us turn aside and see what all this has done, and is now doing for the doctor; the man who existed before the doctor, co-exists with the doctor. If that man be well bred, refined and courteous, the doctor will be more refined and courteous; if that man be sober, upright and intellectual, the doctor will be more intellectual, will have more sobriety and will be more uncompromisingly upright. However, if that man be a weakling, the doctor will be weaker; if that man be unscrupulous or dishonest, the doctor will be more so; if the man be a moral pervert, given to licentiousness, these will be magnified in the doctor; in short, a medical education enlarges the faculties and powers of the man. As has been indicated, the faculties are strengthened, the tendencies cultivated, the egotism nurtured.

Man is naturally an egotist. The Ego, the I AM, distinguishes Man alone; without this faculty man sinks to the bestial level, loses his identity as an individual in society or in the affairs of state. Egotism in well balanced degree is not only commendable but necessary, cultivated improperly or unproportionately, it becomes more dominant and may even assume entire control of man. Egotism overdeveloped leads out to all the fads, lays the foundation for all the cults and 'isms, produces all the faddists who affect all the 'isms in the catalogue.

The primary training of the matriculate continues up to and including his senior days to develop his egotism and to produce an egotist. As he leaves college he receives a parting shot in the Baccalaureate sermon and in the class address and he goes out into the world to meet new conditions and to face new people and new problems, for somehow the people he meets now do not seem to fully appreciate him and his ability for their true worth; however, HE is aware of it and ready to meet the whole world on the issue.

New problems, for somehow the diseases which have been so classically described to him and for which he has such a vivid recollection will not occur in typical form, and then there is such a provoking tendency to read the diagnostic features of more than one disease in one and the same patient at one and the same time. He prescribes for one or all of the conditions as he sees them, and as the greater part of his patients get well, THAT is sufficient for any sane man or woman to see his calling to the profession, and his egotism suffers not a bit, nor does he, as an egotist, grow less sure of his ground.

Now and then he makes discoveries—for example, he discovers that massage is good for certain conditions; that certain parts have become atrophied, have lost form or function in part or whole from disease, disuse or from nutritional causes, and that massage benefits these cases. He specializes, emphasizing his discovery (?) and finally becomes imbued with the idea that all bodily wrongs are attributable to the same or similar causes and are therefore all amenable to the same procedure. His success in his selected cases emphasizes his egotism until he becomes a demagogic egotist. He is unconsciously unbalanced, and his egotism reaches that importance where it controls him.

Another extremist is the mentalist, the phycist, a dangerous 'ist, who specializes first as a neurologist, an alienist, or possibly a hypnotist. He finds certain mental conditions of persistent and insistent symptoms that may be changed from the abnormal to the normal by substituting other impressions for those already rooted in the mind of the unfortunate patient, and that to substitute these normal impressions he must exercise or educate the will of the patient into accepting the substitution. He follows this line until he is ready to accept the suggestion of his egotism and cry out to all comers that he has at last found the panacea for all human ills, in the fact that there is no such thing as real pain or disease, but only the mental conception of such conditions, and that to eradicate all such conceptions from the human mind is to cure all manner of ills for all time. That leads to the further idea that if all is embodied in the thought, therefore there is nothing but thought, and that to proclaim nothing is real or material is the acme of perfected thought; hence all unsatisfactory or diseased conditions are thought away, and another extremist is gathering disciples around the throne. Egotists, Eddyists, Dowieists, etc.

Generations, aye, ages, were necessary to develop Osteopathy and Christian Science, together with their modifications, one taking up the subject where another laid it down.

We can but meditate on the frailties of the human mind; of the instability of character; of the ever changing tide in the affairs of mortal life, when unlinked from a living, active, ruling belief in the Fatherhood of God and the Brotherhood of Man.

During the dark ages when such convictions were loosened, superstition ran riot. Theosophy sprang up as a result of caste in society, when the Brothers in the fastness of the Thibetan Hymalayas reached that degree of concentration that they became self-deluded with the idea that the soul had the power to disembody itself at will and move through space so rapidly that both time and space were annihilated.

A man tainted with such an idea in ever so small a degree, while studying the mind so superficially as is required in our medical schools, in the regular course, may become imbued with the thought of the mind acting independently and extrinsically to and from the body in which it dwells. A full, deep, complete, thorough study of the mind of man teaches that it acts, or possibly a better word, reacts, by and through impulses received in some way through the senses or from deductions based upon such perceptions. However, the faddist thinks not so deeply, and places the responsibility of disease rather loosely.

Enough has already been said to form a basis for some practical deductions and upon which to rest some practical conclusions.

First. The very training of the medical man tends to develop his egotism and to make him, to some degree, an egotist.

Second. An ignorant man makes an ignorant, narrow minded, egotistical doctor.

Third. The more ignorant the mind at any given time, the more prone is it to superstition and faddism.

Fourth. The more educated, liberal minded and cultured the man, the broader and safer the doctor. There are other self-evident conclusions, but these are sufficient for our present purpose. WHAT THE REMEDY?

EDUCATION!

WHERE?

All along the lifeline. In all walks of life a liberal education is necessary to develop and bring out the features of character and to make possible a full effort toward the life work.

Education is but the work of drawing out and building up those powers which our Creator has implanted within us. Addison compares the human soul to a slab of marble, the soul first without education and the marble in the rough; the soul secondarily with education, and the marble after the sculptor has polished it.

Aristotle tells us that a statue lies hidden in every rock and that all that is necessary for us to see it is that some artist shall chisel away the superfluous matter and leave the statute for our view.

A gentleman living on Laurel Heights, San Antonio, remarks that of a morning when he arose with the brilliant sun bathing all around him, he could look out over the city and behold it still covered with the mists of the night, which had not yet been dispersed by the morning sun, the city being scarcely perceptible through the mists which had cleared from the higher ground. He then compares the higher ground with the human mind, risen through education to the high state which its Author intended.

WHEN?

From the cradle; at the mother's knee, and as the child fully repeats in its thoughts and actions what it hears and sees, it is not only necessary that a physician should, as an infant, have that care which will not only develop his body, but his mind as well. And as he grows up, it is a handicap if he associates not with medical men. Thousands of minor things in the physician's makeup can be brought about only by association, and the practice of first becoming an assistant of a physician as a student and helper, has its advantages.

A full, liberal collegiate education is fully necessary to the man who aspires to the lofty position of adviser to the ill.

WHO?

All are agreed that the laity must be educated to the appreciation of the dignity of the profession, but how? Educate the doctor, and then he will lead to and command the respect due him. In this particular I am almost a fatalist, for I verily believe that most men get as much credit as is justly coming to them. It may be delayed for a time, but it will come if persevering patience is practiced.

Then to recapitulate: The man who aspires to the honorable degree of Doctor of Medicine must be educated in body and mind that he may grasp readily and interpret truly.

The primary education takes time and permits him to mature bodily as his mind matures and allows him to matriculate as a man and not as a boy. He knows more of nature and nature's ways; has more and better culture; better judgment, greater consideration for others, and is less easily led astray by dogmas and isms.

He brings with him to the medical school a more mature mind and is better grounded to hear and know the truth, has less respect for unsupported pretensions, in short, he will never allow his egotism to override his brain power or to dominate his actions.

The regular profession is, as a whole, more or less responsible for the existence of all the 'ists and 'isms and indirectly promotes them. We do not allow the possibility of good in them, but condemn them as a whole, never remembering that from time immemorial we, as a profession, have used every and all legitimate means now used by any or all of the 'ists. True, as we have dignified the separation from us and have even stooped to discuss as though they have something which we have not, they have now builded a theory that, taken altogether, has just enough truth in it to make it dangerous.

We practice all the arts of Osteopathy, of Eddyism and of any other 'ist or 'ism that will bear the rays of the sunshine of science or of practical common sense. We should discard our prejudice as a whole, and by getting closer to the people in general than we are now, we shall gain immeasurably. The tendency to cover our actions with mystery is a poor one in this age; it may have been the thing once, but that time is past.

The 'ist gets out and shows and tells what he does and how he does it, the only question being, "Does he show and tell the truth?" but if he does not, it is only a part of his training, and he takes the advantage of those whom we cannot reach.

The great failing of the American people today seems to be that they sympathize with the fellow who is down, or who makes it appear that he is being persecuted by his fellows or co-workers. The 'ist plays on the credulity of the populace and derives support and riches in return.

Our colleges are at fault in many details of the science and have heretofore admitted men of little or no education on an equality with well educated men, and have attempted to make a silken purse out of a sow's ear, with the inevitable result. The colleges of today are making amends in some measure for their past negligence. Many are now requiring at least two full years in a recognized university, while others are looking to the requirement of a full university course, with the degree in science or the arts. This is as it should be, and will do good in many ways, one being the acceptance of fewer men, and another the acceptance of better men. The "Board of Admittance" for the college must in time sit up and take notice of the fitness of character, as applied to ethical medicine, and to admit no other.

One other matter must be taken up before we shall be able to cast out the ignorance which the 'ists are fostering, and that is the incorporation of the 'ism in the regular college curriculum under the sane supervision of intelligence. Teach all the good there is in it, and teach the rejection of the superstition.

It has been only a few years since Dr. John Punton first introduced the study of insanity in the regular college course, and he was looked upon as an extremist at the time. However, it was accepted and adopted by many colleges at large by the end of the second year of his advocacy.

The Chair of Osteopathy, or of Mental and Suggestive Therapeutics, or of any other 'ism would sound rather peculiar to us just now, but we shall live to see them in the catalogues and to hear them from the "Pit." They have a legitimate place in medicine, and should and will be recognized as such, and the cases naturally belonging to them will be directed to that clinic in the same manner that the surgical, the medical, the gynaecological, the neurotic, etc., etc., are today directed to those particular clinics for the diagnosis and treatment by the specialist in that line.

Then, and only then, will the 'ist and 'ism, the cult, cease to exist as a separate and independent, but will take its rightful place as one of the specialties of regular medicine and will ask assistance from other departments of medicine as the exigencies of the case require.

Asepsis is the first essential condition of successful surgery; a close second is rest.—Bernays.

Remember that no age is too young for a truss, and that no hernial protrusion should be without one.—Bernays.

Do not forget that an injury to the head is never so slight as to be despised, and never so severe as to be despaired of.—Bernays.

(Continued from Last Month.)

MY PRESENT POSITION ON APPENDIX QUESTIONS.

And Reference to the Dawn of the Fourth or Physiologic Era in Surgery.

ROBERT T. MORRIS, M. D.

Professor of Surgery in the New York Post-Graduate Medical School and Hospital, New York City.

Discussion.

Dr. A. J. Ochsner, Chicago: At the present time there is no longer any difference of opinion regarding the treatment of patients suffering from appendicitis belonging to three of the four forms described by Dr. Morris, thanks largely to the splendid work done by Morris, Murphy and many other members of the American Medical Association.

The class in regard to which there is still a difference is limited to cases of severe acute appendicitis complicated with peritonitis; cases in which the infection has extended beyond the tissues of the appendix, coming under treatment two days or more after the beginning of the attack.

Eight years ago I published the following conclusions after testing them carefully for a period of eight years. This form of treatment has been used by myself and many others in thousands of cases belonging to this class with the result of reducing the mortality in this most fatal form of appendicitis to less than 2 per cent. by changing an extremely dangerous acute into a comparatively safe interval condition:

1. Patients suffering from chronic recurrent appendicitis should be operated on during the interval.

2. Patients suffering from acute appendicitis should be operated on as soon as the diagnosis is made, provided they come under treatment while the infectious material is still confined to the appendix, if a competent surgeon is available.

3. Aside from insuring a low mortality, this will prevent all serious complications.

4. In all cases of acute appendicitis, without regard to the treatment contemplated, the administration of food and cathartics by mouth should be absolutely prohibited and large enemata should never be given.

5. In case of nausea or vomiting, or gaseous distention of the abdomen, gastric lavage should be employed.

6. In cases coming under treatment after the infection has extended beyond the tissues of the appendix, especially in the presence of incipient diffuse peritonitis. Conclusions 4 and 5 should always be employed until the patient's conditions makes operative interference safe.

7. In case no operation is performed neither nourishment nor cathartics should be given by mouth until the patient has been free from pain and otherwise normal for at least four days. The same practice should be followed after operation.

8. During the beginning of this treatment not even water should be given by mouth, the thirst being quenched by rinsing the mouth with cold water and by the use of small enemata. Later small sips of very hot water frequently repeated may be given, and still later small sips of cold water. There is danger in giving too freely, and great danger in the use of large enemata.

9. All practitioners of medicine and surgery, as well as the general public, should be impressed with the importance of prohibiting the use of cathartics and food by mouth, as well as the use of large enemata, in cases of acute appendicitis.

10. It should be constantly borne in mind that even the slightest amount of liquid food of any kind given by mouth may give rise to dangerous peristalsis.

11. The most convenient form of rectal feeding consists of the use of one ounce of one of the various concentrated liquid predigested foods in the market, dissolved in three ounces of warm normal salt solution, introduced slowly through a soft catheter, inserted into the rectum a distance of two or three inches.

12. This form of treatment can not supplant the operative treatment of acute appendicitis, but it can and should be used to reduce the mortality by changing the class of cases in which the mortality is greatest into another class in which the mortality is very small after operation. This applies particularly to severe acute perforative or gangrenous appendicitis more than thirty-six or forty-eight hours after the beginning of the acute attack.

To Conclusion 8 we now regularly add the excellent method introduced by Dr. Murphy of administering a continuous enema of normal salt solution with an apparatus which permits the flow of only a drop at a time so that it will require at least one hour to introduce 1,000 c.c.

The plan is simply this: In acute appendicitis neither food nor cathartics of any kind whatsoever should be given by mouth, nor large enemata except by the drop method and operation should be performed only when the patient has attained a condition in which the surgeon can reasonably expect a favorable result, judging from his personal observation in previous similar cases.

Dr. Alexander Hugh Ferguson, Chicago: In my opinion it is a dangerous thing to teach that the incision must be a very small one. What is a small incision for one surgeon is not, for physical reasons, a small one for another surgeon. What is a proper-sized incision for the deliverance of the appendix in the hands of one man is dangerous in the hands of another. The incision, therefore, must be of the length necessary to delivery of an infected appendix without rupturing or tearing it.

I can not get over the idea of holding off operation in infected cases. Dealing first with the infected mass is, in my judgment, necessary and must be done with the greatest amount of care. I can not restrain myself from doing something for every case of appendicitis that presents itself to me, irrespective of the number of days it has existed. We can not judge by hours or days of the pathologic condition. In the apparently moribund patients, say between the third and fourth day of the disease or later, I feel like doing something more than washing out the stomach and rectum. I think that at that very stage, when we know that there is pus in that region, demonstrated by the signs and symptoms manifested by the patient, a minimum amount of surgery under local anesthesia should be practiced. Make a very small incision and drain. In other words, create a line of least resistance outward. I believe, however, that many patients have been lost because of the surgeon doing a major operation at that very dangerous time. How many of these patients now die when left to medical treatment alone is a pertinent question.

Dr. D. N. Eisendrath, Chicago: There is one feature of this subject that I will discuss more fully. It is one which interests particularly the surgeon who is obliged to operate in cases of general peritonitis which the medical man has tried in vain for two or three days to treat by palliative measures. Many of these patients are brought to the surgeon when the abdomen is enormously distended on account of septic paralysis of the intestine, when the pulse is 130 to 160 and the patient is thoroughly septic. The time to bring the patient to the surgeon is in the first twenty-four or forty-eight hours, before there is much toxemia or a great degree of infection. We have learned to leave these advanced cases alone and try to tide the patient over the attack. We elevate the head of the bed, place the patient on starvation treatment and wait until such time as the appendix can be taken out safely in the interval.

During the past nine years Drs. McArthur, Greensfelder and myself have treated thirty-four patients with general peritonitis, and of these we have been able to save 21, or 60 per cent. This includes not only cases brought in during the first day or two of the attack, but on the fourth or fifth day. My own personal statistics based on work done during the past three years are that I have been able to save eleven out of twelve patients. This has been accomplished by following the dicta Dr. Murphy laid down so clearly: by a rapid technic and leaving good drainage in the wound. Of much importance is the after-treatment. We must learn to leave these patients alone and not meddle too much in the after-treatment. Patients should not be filled up with fluid by mouth. We lost two patients, one my twelfth case, through giving large quantities of fluid by mouth. The result was an acute dilatation of the stomach, and all efforts to give relief failed.

Other points of importance are the use of the continuous salt solution by the drop enema method, first advocated in this country by Dr. Murphy, and the use of the Fowler position. One should be constantly on the watch to detect secondary abscess between the coils of intestine or a sub-phrenic abscess.

Dr. Carl Beck, New York: If this country had done nothing else than to elucidate this obscure question, it would have done enough for the whole world. Germany, recognizing what America has done, accepts American views. Two years ago a discussion on this subject was held in Berlin before the local medical society. I was invited to take part and was very much pleased to see in use the methods advocated in this country, but the Germans forgot that it was this great country which brought out these ideas. I congratulated the members of the society that they had become so much Americanized, and I am the only American who ever said so to the members of the Berlin Medical Society.

Regarding the care of the appendix from my own surgical experience, I can say that anything necrotic serves as a place for bacteria to settle.

Dr. William L. Rodman, Philadelphia: One hesitates in entering on a discussion of appendicitis in Chicago, because so much or, I almost said, nearly all the good work in this particular line is being done in Chicago in the last few years. In 1901 I saw a great deal of work done by Dr. Ochsner. It was a revelation to me, and when I heard his epoch-making Chairman's address at St. Paul a little later I returned to Philadelphia determined to put into practice the safe, sound and sane doctrine which I had heard. I was severely criticised in several hospitals for pursuing

what I believed from Ochsner's teachings to be a masterly inactivity in cases in which I had been tempted to operate before. It was with some trepidation that I looked for a good result in several instances, knowing that I would be criticised for not operating in such cases the moment I saw them, but I have never yet felt that I regretted following Ochsner's teachings. I believe that he has done more to straighten out this knotty question of when to operate than any one else who has ever lived.

As for the way to operate and the details of operative procedures and technic, of course, Murphy has swept the floor clean; he has left nothing for anybody else to say. I believe that all of us are getting results in operations for appendicitis today that would not have been possible but for the teaching of these men, because they have looked far ahead of their time and they have been the cause of saving thousands and thousands of lives by discouraging premature, foolhardy operations. As to the technic in operations, I believe in ligation of the stump, provided it is covered with the subperitoneal coat, and at the same time the meso-appendix is brought up and placed as a cap over the appendix so as to prevent any possible infection of the cavity. It is a safer procedure than the mere purse-string method.

Dr. J. H. Stealy, Freeport, Ill.: I fear that two points mentioned will be misunderstood. 1. Leucocytosis does not amount to much in appendicitis. In the first stage it is very important, but many times I have found a leucocytosis of 8,000 or 9,000 and at the operation I found an ounce or two of pus in an abscess cavity. Drainage is valuable in such cases, as in many others, but the secret of drainage, in my opinion, is to know how to handle the drainage after it is once put there. I have operated on a number of patients throughout the country who were left for the practitioners to look after. If there was not much discharge at the end of the second or third day, the practitioners have removed the drainage. As a result, Nature's protecting wall has been torn up, permitting extension of infection, and within twenty-four hours there was a general peritonitis and the patient died.

Dr. C. C. Roger, Chicago: In cases of fibrous appendicitis, when the nerves of the appendix are caught in the fibrous tissue, causing almost constant pain—a condition I have described as neuroma of the appendix—if there is no improvement under medical treatment, the appendix should be removed. What is found on entering the abdominal cavity is simply a hard, white cord, which looks as though its removal were almost useless, but the patient will be cured if it is taken off.

I admit that a leucocyte count does not amount to much. Some of my worst cases of gangrene of the appendix had only 5,000 leucocytes. That is not the rule, however; usually in such cases there is a high leucocyte count. If the patient is overcome with toxins, the leucocytes are low. Make a differential count and if you find over 80 per cent. of polymorphonuclear cells operate; if there are 5,000 leucocytes with 98 per cent. of polymorphonuclears the case is an operative one; death is imminent and you must operate at once. The leucocyte count, then, is not of much value, but the differential count is of great value. The incision should be short. The appendix can be removed through an incision sufficiently large to introduce the index finger, provided the appendix is not bound down. The incision should be made wherever the appendix is. McBurney's point means nothing, because the appendix may be any place in the abdominal cavity. The

point is to make the incision so you can get at the appendix. The time to operate is at sight in the majority of cases. To wait forty-eight hours is nonsense. Suppurative cases should always be drained, but too much drainage is bad and too little is just as bad. The drain is useless if it is removed inside of twenty-four hours. Leave it in place until it becomes slimy and the exudates push it loose (forty-eight to seventy-two hours). The drainage can be removed at the proper time without danger to the patient.

Dr. H. J. Burwash, Chicago: In the postoperative treatment of those cases of diffuse suppurative appendicitis in which there is a liability to obstruction of the bowel I have used with success enemata of oxygen gas. This is introduced early and before marked signs of obstruction present themselves. The gas is allowed to run slowly into the bowel for five or six minutes hourly. It has the immediate effect of neutralizing noxious gases in the intestinal canal, the therapeutic effects of oxygen on the general circulation, and the mechanical effect of preventing adhesions and hence obstructing by keeping the bowels inflated. This does not, I imagine, exclude the treatment advocated by Dr. Murphy.

Dr. H. A. Royster, Raleigh, N. C.: The general practitioner, with whom I come in daily contact, would like to understand two things about the so-called Ochsner treatment. The first is that any treatment intended to tide the patient over a dangerous period does not mean that operation must be abandoned, but that the patient is being prepared for operation. I believe that the Ochsner treatment is the greatest single advance in the treatment of appendicitis, but it is also the most misunderstood method in America today. I am sure that nearly every practitioner thinks it is a substitute for operation and not a preparation for it. In other words, if he begins the treatment of a case of appendicitis according to the Ochsner method, he will keep it up, no matter what happens, and, when the patient gets over the attack, rejoices in a cure without operation. If the patient dies, it was God's will.

The second point is whether pus is ever absorbed in the abdominal cavity without killing the patient. I have never understood exactly the teaching on that question. This matter must come up in the mind of the general practitioner, especially when he has a patient with a ruptured appendix, pus in the peritoneum, and the case goes along without operation under the so-called Ochsner treatment. I think that it is the duty of those who see the general practitioners when they bring these cases to let them understand that Dr. Ochsner, as well as every other good surgeon, believes always in operating early for appendicitis, but never when it is unsafe.

Dr. Charles E. Thomson, Scranton, Pa.: I am sure that Dr. Ochsner would blush for his treatment if he knew how it was being carried out in the country districts. What does it mean to the general country practitioner? It means: Do not operate in appendicitis, and it means nothing else. Many of those practitioners have always been opposed to surgery, and now they assert that a great surgeon in Chicago is saving nearly all his cases by not operating on them. I admire Dr. Ochsner, but I think that his theory and principles have been misunderstood, and have thus been the cause of filling many untimely graves. I believe that with the Murphy treatment we can save practically all those neglected cases to which Dr. Ochsner applies his treatment, and that the sooner the non-

operative and time-limit theories be eliminated in the treatment of appendicitis the better.

Dr. John B. Murphy, Chicago: It is approximately two years since this subject came before the American medical profession for discussion. We have agreed on the diagnosis, the time to operate and the limitations of this procedure. Limitations are essential to ultimate success. One must do the least thing, the least trauma and finish in the least possible time consistent with doing the thing well.

Dr. Ochsner brought out, probably before any one else, the recognition of the time when it was dangerous to do work in the peritoneal cavity, because the patient had been neglected in the beginning and allowed to get to a position in which he was loaded to the maximum of his vital resistance by intoxication and infection. A painful mortality has brought recognition of the fact that there are cases in which a little additional work means a fatal termination; that trauma in the peritoneum is one of the most dangerous types of trauma. I am convinced that it is not yet safe to let the order go out that the simple ligation of the appendix, without any further protection of the stump, is ample. I feel that we should give an additional protection to that stump other than mere ligation in the acute infected cases. These are the cases in which we are most likely to have leakage when we simply tie the stump and cut it off. In the intermediate cases, in which I have no infiltration, no reaction to inflammation at the time, I treat it by clamping, by tying a ligature in the crease, and then by taking an overstitch so that there is no raw or abraded surface at that point to become adherent, and it will not become adherent. In the active cases I ligate and then put in a drain.

Appendicitis in pregnancy has a colossal mortality, something like 60 per cent. mortality to the mother and about 90 per cent. mortality to the child. I have been endeavoring to estimate the best time to act. In all the cases that come under my observation, in which the patient has had attacks of appendicitis, I insist on an operation before there is another attack and at the earliest time after impregnation. I think that that will give us the best results.

As to the management of peritonitis, we have up to this date had forty-three cases of perforation of the appendix into the free peritoneal cavity with general diffuse, spreading peritonitis. Among these forty-three cases we had forty-one recoveries. One patient died of pneumonia six days afterward and another died of intestinal obstruction under my own eyes four days afterward with gangrene of six inches of bowel. In the cases with recovery there was much creamy pus around the abscess. This creamy pus, Nature's means of defence, is loaded with scavenger leucocytes; it is producing a circumscribed inflammation of the peritoneum. That means resistance. In the other varieties of peritonitis and perforation not associated with appendicitis, we have had all together nine cases, making a total of fifty-two cases. Five of these were diffuse with perforation and recovery.

There is pus and pus. Dr. Morris does not mean that the pus of the appendix that has ruptured into the free peritoneal cavity could be cared for without interference, because then we would not need any operations. He means that pus of the staphylococcus, the colon bacillus, or the

streptococcus type—and these are the three principal types of pus in the peritoneal cavity—does not, without the element of tension, produce a fatal absorption in any place in the body. He means that the defensive forces of the body are not fully appreciated.

The elements of treatment consist of: 1, closing the opening; 2, relieving the pus tension by putting in a drain; 3, getting out of the peritoneal cavity and leaving in the drain to prevent subsequent tension—no flushing, no washing, no sponging, no trauma. In following out that line of treatment we have not overburdened the patient at the time of the operation with the additional absorption of the products of infection; we have not killed him on the operating table, and these results gained in an experience of five and a half years shows what we can hope for in this disease. Salines are used in all our severer operations of every kind, whether abdominal or not.

Dr. Robert T. Morris, New York: I adopt the Ochsner starvation treatment in principle, but prefer to do a three to five minute operation on a patient when I can; then leave him to his opsonins and phagocytes. The Ochsner treatment is one of the greatest points ever made in the history of appendicitis. The Ochsner treatment as comprehended by the average physician of New York is damnable. We are now arriving at the era of physiologic surgery, of leaving something for the patient's phagocytes and opsonins to do. If we leave this factory of the patient's in good condition, it can go on manufacturing these substances and cure him.

As to simple ligation, what is the difference whether the stump of the appendix lies against the parietal peritoneum or against the visceral peritoneum, the peritoneum of the meso-appendix, which is drawn up over it, or the peritoneum brought up on the stump by the infolding suture? In all these cases the stump lies against the peritoneum, and that is the essential thing if it is promptly walled in by a plastic exudate. We save time by the simple ligation, and time is the thing we must keep in mind in connection with this new principle, the new era in surgery. Dr. Ferguson is still afraid of pus in the peritoneal cavity. If we use gauze to wall off that area we are doing too much surgery. If we fill the patient with gauze, we are performing taxidermy on him. If we break down the adhesions, what will be the influence if we let a pint of pus into the free peritoneal cavity. That is an albuminous fluid, and it will furnish nourishment to the patient. You may kill him if you try to get it out. Let him get it out. He can do it better than we can. In cases of general peritonitis I believe in the three to five minute operation together with the Ochsner treatment. In the last 100 cases at the Post-Graduate Hospital, 100 consecutive cases of appendicitis, unselected, treated by the method of leaving the patient to his own opsonins and phagocytes, 41 acute cases of appendicitis and 59 interval and other cases, there was only one death. I might have presented other series of cases, but this one will suffice. I have operated on every appendicitis patient with peritonitis who was still breathing when I got to him.

—J. A. M. A.

*Read in the Section on Surgery and Anatomy of the American Medical Association, at the Fifty-ninth Annual Session, held at Chicago, June, 1908.

PROCEEDINGS OF THE THIRD ANNUAL MEETING OF THE MEDICAL
ASSOCIATION OF THE SOUTHWEST AT KANSAS CITY, MIS-
SOURI, OCTOBER 19TH TO 21ST, 1908.

Coates House, October 19th.

A meeting of the Executive Committee with the following members present: Drs. B. J. Vance, L. H. Buxton, J. Johnson, G. H. Moody, W. H. Cary, Dr. John Punton, Chairman of the Committee on Arrangements; President Thomas E. Holland and F. H. Clark.

The Secretary presented the application of Dr. J. Reed, Lytle, of Kansas who was not a member of the State Association because his County Association was not affiliated with the State Association, but who asked membership in the Medical Association of the Southwest. Application was rejected and the Secretary instructed to write him that according to the constitution, none but members of the component State Associations in good standing could become members of this Association.

The Secretary reported that he had secured the services of Mr. William Whitford of Chicago, who is the official reporter for the A. M. A., to report the proceedings of this meeting at the rate of ten dollars per day and 20 cents per folio for two copies of the transcript of the proceedings. On motion, duly seconded and carried, the action of the Secretary was endorsed and he was authorized to pay for such service.

On motion of Dr. Punton, duly seconded and carried, the rule was adopted that during this meeting papers should be read alternately from each section.

The Chairman of the Committee then outlined the arrangements made by the committee for the meeting, including the social features, which included a dinner for the visiting ladies and their husbands; an automobile ride for the physicians as well as for the ladies, and a smoker for the men.

The Secretary-Treasurer then presented his report for the year, giving a brief synopsis of the effort made to reach and interest all the members of the profession in the five component states. The present membership numbers 580, which was a very satisfactory gain during the past year.

The financial report shows:

Total receipts during the year.....	\$653.29
Total disbursements for same time.....	622.35

Balance on hand.....	5 30.94
Total outstanding bills unpaid.....	\$ 91.25

An auditing committee, consisting of Drs. E. H. Cary, John Punton and the Secretary was appointed to audit the books and accounts, and after reporting that they found the accounts and books correct, the report was accepted and ordered spread on the minutes.

A letter from Dr. Herbert L. Burrell, President of the A. M. A., regretting his inability to be present and wishing the Association a very prosperous year and a good meeting, was read and ordered read to the Association at one of the general meetings.

The President addressed the committee at length regarding the necessity for hearty co-operation on the part of the state journals if we are to make this Association a success, and was authorized to appoint a publication committee consisting of one from each state who is a member of

the executive committee, to devise ways and means to accomplish this result.

The meeting then adjourned to meet at 12 M., Tuesday, October 20th.

Casino Hall, October 19th, 2 P. M.

General meeting of the Medical Association of the Southwest called to order by the Chairman of the Committee on Arrangements, Dr. John Punton, of Kansas City, Missouri, who announced that Mayor. Thos. T. Crittenden, who was to deliver the address of welcome, was unavoidably detained, and introduced Dr. Jabez Jackson who, in a few well chosen words, gave a cordial welcome to the visiting physicians and their wives in behalf of the profession of Missouri and of Kansas City. Dr. Punton then announced that immediately after the adjournment of this session the visiting physicians were invited to become the guests of the physicians of Kansas City and enjoy an automobile ride over the beautiful parks and boulevards of Kansas City. He then introduced the President, Dr. Thomas E. Holland, of Hot Springs, who called upon the following to respond to the words of welcome for their respective states: For Arkansas, Dr. C. T. Drennan of Hot Springs; for Oklahoma, Dr. A. K. West of Oklahoma City; for Missouri, Dr. C. W. Fassett of St. Joseph; for Kansas, Dr. Geo. M. Gray of Kansas City, Kansas; for Texas, Dr. Joe Becton of Greenville.

Meeting then adjourned until 8 P. M.

Coates House, October 19th, 9 P. M.

Meeting called to order by Vice President S. S. Glasscock, who introduced the President, who then delivered his annual address, which dealt particularly with the birth, origin and need of this Association. Meeting then adjourned to take up the scientific program at 9 o'clock A. M., Tuesday morning.

The following were appointed as members of the Nominating Committee:

From Kansas, Drs. Geo. M. Gray, C. C. Goddard, Noah Hays, Hugh B. Caffey and S. S. Glasscock.

From Missouri, Drs. Mott, Fassett, Lockwood, Dixon and Stauffer.

From Oklahoma, Drs. M. A. Kelso, A. K. West, H. Reed, R. V. Smith and S. M. Jenkins.

From Texas, Drs. F. D. Boyd, Joe Becton, E. H. Cary, D. Strickland and Bacon Saunders.

Casino Hall, October 20th, 9 A. M.

Meeting called to order by Vice President S. S. Glasscock, who introduced Dr. Bacon Saunders, who read the Chairman's address of the Section on Surgery, which was followed by the Chairman of the Section on General Medicine, Dr. F. B. Young, and who was followed by Dr. L. H. Buxton, Chairman of the Section on Eye, Ear, Nose and Throat. Dr. S. S. Glasscock then introduced the Hon. T. T. Crittenden, mayor of Kansas City, who briefly welcomed the visitors to Kansas City and assured them that, owing to the authority granted him by the charter, he was in a position to assure the visitors that the city was theirs, and that if any of them got into trouble he would only need to produce his credentials showing him to be a member of this Association to secure executive clemency.

Dr. Punton then announced that at 2 P. M., the committee to entertain the visiting ladies would take them for an automobile ride around the boulevards, stopping for tea at the country club. Also that the visiting physicians would be entertained with a smoker in the Coates House Tuesday evening at 8 o'clock.

The Secretary reported that since the meeting of the Association at Hot Springs about 150 new members had applied for admission to the society, all of whom represented themselves to be in good standing as members of their respective state associations, and asked if he should read the names of these applicants. Upon motion the reading of the names was dispensed with and the Secretary instructed to enroll them as members.

Meeting to take up work of the scientific program.

Coates House, Parlor A., October 20th, 12 M.

Meeting of the Executive Committee called to order by the Chairman, T. E. Holland, with the following members present: G. H. Moody, John Punton, L. H. Buxton, B. J. Vance, Bransford Lewis, C. T. Drennan, LeRoy Long and F. H. Clark.

A free discussion regarding the work of the Publication Committee was indulged in and the President announced as the committee for the coming year the following:

For Arkansas, Dr. C. T. Drennon; for Missouri, Dr. Bransford Lewis; for Oklahoma, Dr. L. H. Buxton; for Kansas, Dr. Geo. M. Gray; for Texas, Dr. G. H. Moody.

The Publication Committee was instructed to meet at 5:15 Tuesday afternoon.

Committee then adjourned to meet Tuesday evening at 8 o'clock.

Coates House, October 20th, 8 P. M.

Meeting of the Executive Committee called to order, and the Secretary, who had been authorized to prepare and present the report of the executive Committee, then presented the report, which embodied the portions of the report already presented by the Secretary, showing the present membership and the financial items; the report showed the effort made to interest all the county officers in the five states and the effort made to secure their attendance at this meeting, and recommended that the effort be renewed next year; it also contained the report of the special committee appointed to attend the annual meeting of the A. M. A. at Chicago and ask for recognition as a branch Association, and reported that that had been formally promised at that time. It also mentioned the need for more thoroughly presenting the aims and needs of this Association to the profession at large through the different state journals, and recommended that this matter be urged and an active campaign be carried forward in this department. The question for consideration then was whether the Association should next year have general sessions, as had been arranged for this year, and the recommendation was then made that there be only two general sessions at the next annual meeting, with the remaining session divided up into sections for scientific work.

After accepting the above report and authorizing the Secretary to present the same at the general session Wednesday morning, the Committee adjourned to meet Wednesday after the election of the new officers, at 12 M.

Casino Hall, October 21st, 9 A. M.

Meeting of the Association called to order by President Holland. Dr. Geo. M. Gray, of Kansas City, Kansas, then presented the following resolution which, upon motion, duly seconded and carried, was unanimously adopted:

Resolved, That the Medical Association of the Southwest approves the efforts of the graduate trained nurse to raise the standard of education and to obtain proper recognition through registration.

(Signed) GEO. M. GRAY.

The report of the Executive Committee, as outlined elsewhere, was presented, which, upon motion, duly seconded and carried, was adopted and ordered spread on the minutes.

The following resolutions were then presented by Dr. E. H. Martin of Hot Springs, Arkansas:

Whereas, The tendency of physicians and charitable organizations over the country is even now to send advanced, indigent consumptives from their homes to climatic resorts, notably parts of Texas, Colorado and the South-west; and

Whereas, The consensus of opinion among the best authorities is that climate alone cannot cure tuberculosis; and

Whereas, Boarding houses and hotels in many resorts no longer open their doors to this class of people, thereby depriving them of any chance of securing proper accommodation; and

Whereas, The sanitariums and eleemosynary institutions of the South-west are already overburdened with such cases, and the people are called upon to double duty, in that they must take care of others besides their own consumptives;

Therefore, Be It Resolved, That all states and territories throughout the country, and all physicians and charitable organizations be urged to discourage the aimless drifting of the average consumptive and that all advanced consumptives be kept within the confines of their own city, county or state, and that the legislatures of the several states be urged to pass such laws as will insure the building and maintenance of sanitariums for curable cases and hospitals for advanced and incurable cases.

(Signed) E. H. MARTIN.

On motion, seconded and duly carried, the above resolutions were unanimously adopted. The Secretary was also authorized to notify the Secretary of each State Association of this action.

The report of the Nominating Committee was then presented, placing in nomination for the office of President for the coming year, Drs. Jabez N. Jackson of Kansas City, Missouri, and S. S. Glasscock of Kansas City, Kansas. Upon motion of Dr. Glasscock, duly seconded and carried, the rules were suspended and the Secretary was instructed to cast the unanimous vote of the Association for Dr. Jackson for President for the ensuing year. The Secretary then announced that he had cast 243 votes for Dr. Jackson for President, and the President declared Dr. Jackson duly elected.

The Committee then nominated for Vice Presidents for the ensuing year, Drs. D. L. Berry, Parsons, Kansas; M. A. Kelso, Enid, Oklahoma; Joe Becton, Greenville, Texas, and St. Cloud Cooper, Fort Smith, Arkansas. Upon motion the rules were suspended and, as before, the Secretary instructed to cast the unanimous ballot for each of the above. The Secretary then announced the ballot, and the President declared each elected.

The Nominating Committee then presented the name of Dr. F. H. Clark of El Reno, Oklahoma, for Secretary-Treasurer for the coming year, and upon motion the Secretary of the Nominating Committee was instructed to cast the unanimous vote of the Association for Dr. Clark for Secretary-Treasurer, and the President declared him elected.

Dr. Bacon Saunders then moved that a rising vote of thanks be tendered the Secretary for his services in behalf of the Association during the past year, which was unanimously carried. After, the Secretary, in a few words,

thanked the Association for the honor they had conferred and pledged his best efforts in the year to come.

The President then appointed as a committee of two to wait upon the President-elect and inform him of his election and escort him to the platform, Drs. Bacon Saunders and C. W. Fassett. While Dr. Fassett was searching for the President-elect, Dr. Bacon Saunders presented the following resolutions, which were unanimously adopted by a rising vote:

In view of the unbounded hospitality and the ample facilities afforded this Association at this meeting for the comfort, pleasure and delectation of its members,

Be It Resolved, That the thanks and sincere appreciation of the Medical Association of the Southwest be expressed by a rising vote to the profession of Kansas City, to its Committee of Arrangements, and to all those who have in any way contributed to the royal greeting and lavish hospitality extended to us during this meeting;

And especially do words fail us when we attempt to voice the gratitude of our hearts for the very great courtesy shown in providing such unfailing means for the pleasure and happiness of the visiting ladies. They must be a gentle and hospitable people indeed who care so well for the strangers within their gates.

Here's to the City by the Kaw—may her longevity and prosperity be as boundless as her hospitality.

(Signed) BACON SAUNDERS.

The President-elect, Dr. Jabez N. Jackson, was then installed into office and addressed the Association, setting forth briefly the aims and ambitions for the coming year, and asking for the same loyal support that had been accorded his predecessor.

The following members of the Executive Committee were then elected, to serve for three years:

Dr. B. J. Vanc, Checotah, Oklahoma; Dr. J. D. Riddell, Enterprise, Kansas; Dr. E. H. Martin, Hot Springs, Arkansas; Dr. C. W. Fassett, St. Joseph, Missouri; Dr. D. Strickland, Clebourne, Texas.

The Nominating Committee then presented San Antonio, Texas, as the next place of meeting, which was, upon motion, duly selected, and the meeting adjourned to finish the scientific session.

F. H. CLARK, M. D.,
Secretary-Treasurer.

Section Officers for the Ensuing Year.

Section on Surgery—Chairman, Dr. J. A. Foltz, Fort Smith, Arkansas; Vice Chairman, Dr. R. H. Barnes, St. Louis, Missouri; Secretary, Dr. E. H. Martin, Hot Springs, Arkansas.

Section on General Medicine—Chairman, Dr. A. K. West, Oklahoma City, Oklahoma; Vice Chairman, Dr. G. H. Moddy, San Antonio, Texas; Secretary, Dr. Louis M. Warfield, St. Louis, Missouri.

Section on Eye, Ear, Nose and Throat—Chairman, Dr. F. D. Boyd, Fort Worth, Texas; Vice Chairman, Dr. J. F. Gsell, Wichita, Kansas; Secretary, Dr. A. W. McAlester, Kansas City, Missouri.

MINUTES OF THE CHOCTAW COUNTY MEDICAL SOCIETY.

October 6, 1908.

Meeting called to order by Dr. R. J. Shull, in the absence of both the President and the Vice President.

Minutes of the last meeting read and approved.

Motion by Dr. J. C. Ellis of Hugo, and seconded by Dr. J. S. Miller of Hugo, that the time of the meetings of the Society be changed from 8 p. m. to 1 p. m. Motion carried.

Motion made, seconded and carried to prefer charges against Dr. John T. Vick of Fort Towson for unprofessional conduct.

Motion prevailed instructing the Secretary to inform Dr. Vick of the charges preferred, and asking him to appear at the next regular meeting, November 3d, and answer the charges.

There being no further business to come before the meeting, an adjournment was taken until the next regular meeting, November 3, 1908.

(Signed) E. R. ASKEW, Secretary.

November 3, 1908.

Meeting was called to order by the Secretary, the President and Vice President both being absent.

Minutes of the last meeting read and approved.

The first thing in order being the charges against Dr. John T. Vick, for unprofessional conduct, preferred by the Choctaw County Medical Society, Dr. Vick, being present, handed the Secretary a note, reading as follows: To the Choctaw County Medical Society:

I hereby acknowledge that I have made an error against the Medical Ethics, unintentionally, and I hereby ask forgiveness of this Society, and promise that, in the future, it will not occur again.

Faternally yours,

November 3, 1908.

(Signed) JOHN T. VICK.

Motion by Dr. H. L. Wright, seconded by Dr. J. C. Ellis, that the apology of Dr. Vick be accepted and that all charges be dismissed. Motion carried.

Meeting then adjourned to the next regular meeting, December 1, 1908, when the following program will be carried out:

Clinic—Dr. J. C. Ellis.

Paper—"Acute Bronchitis"—Dr. R. J. Shull.

Discussion—Dr. Chas. Swearingen.

Paper—"Appendicitis"—Dr. J. S. Miller.

Discussion—Dr. C. J. Shearer.

Clinic—Dr. E. R. Askew.

Among the doctors from Oklahoma who were in attendance at the recent meeting of the Medical Association of the Southwest, we notice the following. Dr. R. V. Smith, Guthrie; Drs. H. Reed, A. K. West, L. Haynes Buxton, Oklahoma City; Drs. M. A. Kelso and S. M. Jenkins, of Enid; Dr. LeRoy Long, of McAlester; Dr. B. J. Vance, of Checotah, and Dr. F. H. Clark, of El Reno.

At the recent meeting of the Medical Association of the Southwest, Dr. M. A. Kelso of Enid was elected vice president for Oklahoma, Dr. L. Haynes Buxton, Oklahoma City, Oklahoma's member of the publication committee, and Dr. B. J. Vance, Checotah, member of the executive committee from Oklahoma.

THE JOURNAL



Oklahoma State Medical Association.

VOL. 1

GUTHRIE, OKLAHOMA, DECEMBER, 1908

No. 7

E. O. BARKER, EDITOR-IN-CHIEF.

ASSOCIATE EDITORS AND COUNCILLORS.

G. A. WALL, Oklahoma City.

E. S. LAIN, Weatherford.

E. D. EBRIGHT, Carmen.

C. A. THOMPSON, Muskogee.

H. P. WILSON, Wynnewood.

A. L. BLESCH, Oklahoma City.

E. B. MITCHELL, Lawton.

F. R. SUTTON, Bartlesville.

LE ROY LONG, McAlester.

E. N. WRIGHT, Olney.

Entered at the Postoffice at Guthrie, Oklahoma, as second class mail matter, September 1908.

This is the Journal of the Oklahoma State Medical Association, and every member is entitled to a copy every month; and if any member does not receive his Journal promptly, the matter should be reported to this office. Communications of all kinds should be addressed to the Editor.

MEDICAL LEGISLATION.

As the State Legislature will convene in a few days now, it behooves the Committee on Medical Legislation to be on guard to see that nothing that may be harmful to the people or the profession be enacted into law. Of course the horde of quacks, acting under the various names, will be on the ground to look after their interests, and whether we expect to ask for any changes in the present laws or not, we will have to see to it that what we now have are not made less effective.

We would also suggest to the profession at large that any ideas regarding medical legislation should be suggested, first to the Committee on Medical Legislation, and not direct to the members of the Legislature. The constitution and by-laws of the State Association

provide for a Committee on Public Policy and Medical Legislation, whose duties shall be "Under the direction of the House of Delegates it shall represent the Association in securing and enforcing legislation in the interest of public health and of scientific medicine. It shall keep in touch with professional and public opinion, shall endeavor to shape legislation so as to secure the best results for the whole people, and shall strive to organize professional influence so as to promote the general good of the community, in in local, state and national affairs and elections." See Sec. 3, Chap. 3, By-laws.

It is only by concerted action that the best results are obtained, hence the Committee on Public Policy and Medical Legislation. The State Medical Association, through its House of Delegates, elected by the various County

Medical Societies, elected a President, who is authorized by the by-laws of the Association to appoint a Committee on Public Policy and Medical Legislation. While we believe that every member of our State Association has a right to his personal opinion on all subjects, it is not conceded that any member has the right to set his personal opinion up against the efforts of the Committee of his Association, hence the suggestion that the Committee be made a sort of a clearing house for the various ideas of the members of the profession, so that if any attempt to change the present laws is to be made, there may be concerted action. The names and addresses of the members of the Committee on Public Policy and Medical Legislation may be found in another part of this issue of the Journal.

We here quote from an editorial in the November issue of the New York Journal of Medicine, entitled "The Danger of Signing Petitions," which contains some very important suggestions:

"With the coming of the new year, the Legislature of this and many other states will convene for the purpose of enacting new legislation and modifying or repealing the laws already on the statute books.

"Some proposed bills are purely local in character, and while they might help a particular individual or locality, if applied to the entire state, would be uncalled for or even harmful. Some of the proposed measures conflict with laws already in existence, and would cause much confusion if passed. Many are clearly unconstitutional, while others are unnecessary or vicious.

To watch these measures properly and safeguard the public and the profession, the State Society maintains a Committee on Legislation.

The County Societies also maintain such committees, and if, as is shown by the by-laws of New York County, they act in conjunction with the state organization, how much more

important is it that the individual should so act and not act on his individual responsibility.

"These committees employ many means to present arguments to the legislators for or against proposed legislation, among them being the signing and forwarding to the Legislature of properly worded petitions. This method, however, is also employed by those who desire to promote public sentiment for or against proposed legislative measures, and very frequently medical men are asked to sign such petitions. A request to sign may be made by a friend, and for that reason the signature may be given without any real, careful thought being accorded to the proposed measure; or the petition may be presented by a plausible and tactful agent, who may explain all the benefits and omit all the disadvantages of the bill if it should become a law.

"Doctors are busy men. Most legislation is more or less complicated, and a simple, harmless appearing measure might prove most serious if enacted into law and strictly interpreted by the courts. The effects may be far reaching; the results produced most unexpected, and unless great care is exercised many will find to their sorrow that their approval has been secured for measures which, when they have had time to study them carefully, meet with their hearty disapproval or condemnation. Perhaps they ask to have their signatures removed from the petition; perhaps they may prefer to be misrepresented rather than go further in the matter; but how much wiser it would be for the doctor, when asked to approve or disapprove of impending or proposed legislation, to refuse to sign such petitions, and await the action of the State Society, of which he is a member, and through which he can speak by action of its House of Delegates or Committee on Legislation."

A LITTLE LATE.

On account of the change in the form of the Journal, the preparation of the list of members, and various other matters, we are late with this issue, but we promise to do better hereafter.

EDITORIAL NOTES.

Dr. W. W. Rucks, formerly of Guthrie, has resigned his position of head physician in the Oklahoma Hospital for the Insane, at Fort Supply, and will return to Guthrie after the first of the year and open a private sanitarium for the treatment of mental and nervous diseases and drug addictions.

In addition to the position now occupied by Dr. Rucks, he has had four years experience in the Central Tennessee Hospital for the Insane, and is well qualified for the special work he is undertaking.

On the first and second days of the present month Dr. N. P. Colwell, Secretary of the Council on Medical Education of the American Medical Association, inspected the several medical colleges in Oklahoma. We had the pleasure of making his acquaintance, and the two days were most pleasantly spent.

One of our new "ads" for this issue is that of the Moore Drug Company of Wichita, Kans. We would suggest that our members keep this worthy firm in mind when buying supplies.

PER CAPITA.

Don't forget that the annual per capita to the State Association is \$2.00 and that the fiscal year is the calendar year, beginning January 1 and ending December 31.

See that your County Secretary sends in your per capita to the State Association early, in order that you may receive every copy of the Journal.

BOOK REVIEWS.

**PULMONARY TUBERCULOSIS
And All Complications.**

Pulmonary Tuberculosis and All Complications, by Sherman G. Bonney, M. D., Professor of Medicine, Denver and Gross College of Medicine, Denver. Octavo of 778 pages, with 189 original illustrations, including 20 in colors and 60 X-Ray photographs. Philadelphia and London. W. B. Saunders Company, 1908. Cloth, \$7.00 net; Half Morocco, \$8.50 net.

We consider this one of the most valuable works to the general practitioner that has been published for some time. It is written largely from the author's personal experience in the treatment of tuberculosis, extending over a period of many years. The work treats more particularly of the clinical aspect of the disease, leaving theories to be studied at the reader's leisure. The mechanical construction is of the usual good style of this publishing company.

**A TEXT BOOK OF
DISEASES OF WOMEN**

The New (6th) Edition, Revised

A Text Book of Diseases of Women, by Chas. B. Penrose, M. D., Ph. D., formerly Professor of Gynecology in the University of Pennsylvania. Sixth Revised Edition. Octavo of 550 pages, with 225 original illustrations. Philadelphia and London; W. B. Saunders Company, 1908. Cloth, \$3.75 net. Half Morocco, \$5.25 net.

While not a large work, this book contains a large amount of valuable information, especially to the medical student and the busy practitioner. It treats both of the medical and surgical diseases of women, and the illustrations are plentiful and very good.

This being the sixth edition shows that the work has been appreciated.

Original Articles

GANGRENOUS INFLAMMATION OF THE CAECUM

(By V. Berry, M. D., Wetumka, Okla.)

In looking over the limited literature at my command, I find typhilitis as a distinct affection almost unmentioned. I find its fullest consideration in an encyclopedic work covering the whole field of medicine and surgery in condensed form, and here the entire subject is dismissed with two and a half pages. This evidently shows it to be such a rarity that not much importance is attached to the subject; and I have no criticism to offer as to this view, from the fact that any surgeon who knows how to deal with gangrenous appendicitis is competent to deal with gangrenous typhilitis. Some authors claim the disease to be always coincident with appendicitis. However, it has been well settled by competent authorities that it can and does exist without involvement of the appendix. I would instance such an eminent patient as the present King Edward, of England, who was operated upon by Sir Frederick Treves, one of the greatest surgeons in the world. In speaking of typhilitis I am speaking now of the disease in general and not of any particular type, though my case report deals with the gangrenous form, and I can see no more reason why we can not have an inflammation of the caecum primarily, any more than I can imagine it impossible to have primary inflammation of the appendix. It is true there is greater *chance* of appendicular inflammation on account of anatomical defects, giving consequent deficient, or even total lack of drainage under certain conditions; and in my opinion this is the sole reason why there are hundreds of cases of appendicitis to one of typhilitis.

The caecum is subject to all the avenues of infection to which the appendix is subject, and is composed of the same kind of tissue, and the element of drainage is its one source of immunity, as compared with the appendix.

Without going into details as to etiology, pathology and symptoms of this disease which are almost identical with appendicitis, I shall report briefly the following case:

December 5, 1906, I was called to see a Mr. K., aged 37 years, who was suffering apparently from a typical acute exacerbation of chronic appendicitis, and after getting the usual clinical history, I so diagnosed. The temperature at my visit was 100.5° F., pulse 92, had vomited freely at intervals for two days, abdominal muscles were rigid with tenderness on pressure at McBurney's point, and intense pain of a colicky nature had existed from the outset of the present attack—two days previous. He gave a history of "spells" of this nature, occurring at irregular intervals covering a period of about three years, each attack being worse than the one preceding it, the last two being only about six weeks apart. He had been almost an invalid for a year, as unusual labor requiring much exertion tended to bring on renewed attacks with increasing frequency. This is a very serious situation to one who is compelled to earn a livelihood for himself and a large family. I advised rectal feeding for several days, with absolute cessation of food by the mouth, preparatory to operation. He reluctantly consented, remarking at the time that his inability to provide for his family forced him to submit. On my visit four days later I found the temperature normal, pulse 84 and marked improvement of all other

symptoms. Vomiting ceased with the cessation of food by the mouth; and here I wish to say that I have yet to see the first case of appendicitis, no matter how desperate, that has not improved when all food by the mouth was forbidden. If Ochsner never accomplishes one other achievement in surgery, he is entitled to fame for this one dictum. Four days later, December 13th, I opened the abdomen under chloroform and found the following conditions: The caecum was fixed by dense adhesions extending in all directions, and the appendix, which consisted of a mere rudimentary stump apparently healthy, came readily into view in the lower angle of the incision, which was at McBurney's point. The caecum was denuded of its serous coat by gangrenous sloughs and was bathed in greenish pus of fecal odor. A perforation the size of an ordinary lead pencil existed about three-fourths of an inch from the base of the appendix, while another of smaller diameter existed about a quarter of an inch from the appendix, between it and the larger one. The muscular coat of

the caecum was extremely friable over a wide area, so much so that stitches were placed with great difficulty, even when penetrating all the coats of the bowel. The perforations were carefully closed, all pus mopped out and combined gauze and tube drainage applied. Every precaution was exercised to avoid manipulation of the viscera. It is hardly necessary to say the rudimentary appendix was removed, as I do this in all cases where contiguous disease exists.

The patient came from the table suffering considerably from shock, which was no doubt due to the time consumed in the operation, which, in turn, was due to the tediously difficult closing of the perforations caused by the sutures tearing out of the necrotic tissues. Shock disappeared entirely in a few hours, and after twenty-four hours his improvement was rapid and continuous to recovery. The temperature and pulse reached normal in thirty-six hours, and in six weeks the wound was entirely closed. He is today, nearly two years subsequent to operation, in good health, and following his customary vocation, farming.



SANITARY PROBLEMS OF THE CANAL ZONE—HOW WE ARE SOLVING THEM—ORGANIZATION AND METHODS

By Col. W. C. Gorgas, M. D., U. S. A.

The Isthmus of Panama has been the main route of travel between the Atlantic and Pacific oceans for the past four hundred years. For the first half of that time it was almost the exclusive route of travel between these oceans. For the reason that it was such a great route of travel, and so many unacclimated people passed through it, it soon acquired the reputation of being one of the most unhealthy localities in the world. This reputation has clung to it up to the present time, and its history shows that it is well deserved, particularly so in the last fifty years. The French, who worked the canal from '81 to '89, suffered particularly from all the diseases to which a tropical country is liable. We have no data from which we can get accurately the mortality among the French, but all accounts concur in saying that it was enormous and that it played a very important part in causing the failure of the French company.

We took charge May 4, 1904. We organized a sanitary service for the towns of Colon and Panama and the villages situated along the line of the canal between those towns. Besides the purely health work, we arranged for many other services that do not pertain directly to the ordinary health department. This came about from the fact that the sanitary department was the first on the ground, the first to get organized and, therefore, such work as care of sick, street cleaning, garbage collecting, etc., etc., naturally fell into its hands.

At the time of taking charge we knew that we were liable to all the tropical diseases which were at that time rife in the district, yellow fever, malaria, beri-beri, dysentery, ankylostoma, etc. But yellow fever was the most pressing. It had caused the greatest mortality among our predecessors, and caused most demoralization in our own force. The fear that the disease excited was out of all por-

portion to the losses caused by it. For the eradication of this disease we organized exactly as we had done in Havana. The towns of Panama and Colon were divided into districts; each district was placed under the care of an inspector, and this inspector was required to get around through his whole district once a week and make a report upon the condition of the premises as to mosquito breeding. All receptacles for water that could be abolished were done away with; those that could not be done away with, such as cisterns, water barrels, etc., were reported to the main office and from this office carpenters were sent out, who screened them and made them mosquito proof. The inspector had with him an oiler who oiled all receptacles that could not otherwise be taken care of, such as cesspools, etc. The inspector also reported gutters that were in bad condition. These were taken down where possible, and where they could not be taken down, repaired at the expense of the owner. Rain-water gutters are just as prolific a source of mosquito breeding as are cisterns and barrels.

In a city like Panama that has been subject to yellow fever for years, the native is not subject to yellow fever. He has acquired immunity. It is only the stranger who can have the disease. The inspector of each district was required, through the Mayor of the city and the police, to be notified of the residence of all strangers. He had a representative go to the house every day and if any non-immune was there sick he was reported to the health office and looked after. If it were at all suspicious of yellow fever he was either sent to the hospital or his quarters were screened by the health department and a guard placed over it. When the case terminated the house was fumigated for the destruction of all mosquitoes that may have been infected by him. If it turned out to be a case of yellow fever all the houses in the immediate neighborhood were fumigated with the object of killing all the infected mos-

quitoes that might be in the neighborhood.

During the course of our first year in Panama every house in the city of Panama was fumigated twice with the same object in view. During 1904 our work was almost entirely stopped in the towns of Panama and Colon from lack of supplies and certain legal technicalities which had to be complied with. By February, 1905, however, we were able to make a good start with our yellow fever work. During the spring of 1905 several of the prominent employees of the Commission died of yellow fever and the force became very much alarmed and demoralized thereby. All were much discouraged and looked upon the work of the sanitary department as visionary and impracticable, and constant pressure was brought to bear to have the methods as well as the personnel changed. But in one way or another we managed to stand to our guns and hold on, and by midsummer it was evident that yellow fever was on the wane. The last case occurred in Panama City in November, 1905, and the last case on the Isthmus in May, 1906.

These were the methods pursued with regard to yellow fever and these the results obtained, as completely vindicating the methods as did the work in Havana.

The anti-malarial work pertains more to the country districts along the line of the canal between Panama and Colon. For this purpose this region was divided into fifteen sanitary districts with inspector in charge. The anti-malarial work of the inspector consists principally in keeping the ground carefully drained within 200 yards of all towns or dwellings. He drains wherever he can and oils where he cannot drain. For drainage we use three systems: The open ditch, the

open concreted ditch and tile drainage. For a ditch that is expected to be temporary, we use the open work, but in this warm, moist climate vegetation grows like magic and such a ditch has to be cleaned out every two or three weeks. As labor is very expensive here we find this the most expensive form. Where the ditch is to be more permanent, we concrete it. This does away with the grass, but they have to be swept out quite frequently; otherwise small obstructions will cause collections of water which will breed anopheles. Where the character of the drainage allows we prefer the tile. I consider the tile the perfect form of anti-malarial drainage. The tile is laid, covered with broken stone for a few inches, and this covered with dirt. This form of drainage requires no further work.

The results of this work have been very satisfactory; the malarial rate in the last two years has steadily fallen. In 1906 out of every thirteen men in our force eleven had malaria, and out of every thousand men seven died of malaria. In 1907 out of every thirteen men only five had malaria and only four per thousand died of this disease.

The general health conditions have improved in an equally satisfactory manner. Two years ago—in January, 1906—the death rate among our employees was 12.80 per thousand; that is, at the present time we have 27 fewer men die out of every thousand employees than we had two years ago. Our death rate is practically one-quarter of what it was at that time.

In January, 1906, we had a population on the Isthmus of 46,249, of whom 178 died during the month, giving us a death rate of the whole population of 46.18 per thousand. In February, 1908 two years afterwards, we had 113,269 people on the Isthmus among whom we death rate of 21.40 per thousand; that is, taking our total population we have less than half the death rate that we had two years ago.

STATE MEDICINE AND ALLIED SCIENCES, WITH SUGGESTIONS FOR SANITARY AND SOCIAL LEGISLATION

By J. M. McComas, M. D.
Elk City, Okla.

GENTLEMEN:

I cannot better introduce my subject than by quoting a paragraph from the preface of Vol. V of the "System of Physiologic Therapeutics": "Beyond its place in the system of which it is a part, the subject virtually forms an introduction to the science of medicine. It treats especially of the Preservation of Health and the Prevention of Disease, seeking a basis for intelligent prophylaxis in the study of morbid processes and their causation; but this has necessitated a wide range of inquiry. The discussion of Etiology must take into account the psychic as well as the physical characteristics of men; the heredity as well as the constitution of the individual; the intrinsic failures and perversions, as well as the environmental factors, that may disturb mind and body. The artificial conditions of civilization, the diversity, complexity and strenuousness of the activities of modern life, the reciprocal influences of individuals upon communities and of communities upon individuals render it necessary, alike in the study of Personal Hygiene and of Public Health to consider—at least by allusion—many aspects of sociology, involving questions of economics, of engineering, of manufacturing, of architecture, of pedagogics, of commercial intercourse, of taxation, of municipal government. Certain fundamentals of pathology must be presented, together with the principal facts of epidemiology, much of parasitology, and—in view of recent discoveries as to the conveyance of infection by insects—something of entomology."

As statehood for Oklahoma is an accomplished fact, our citizens are awakening to the responsibilities that the new condition will bring to them. The powers and prerogatives of a state have come to us by virtue of our new dignity, just as any office gives to its incumbent

the powers that reside in it. These alone make up a state, but not necessarily a great state. How we put to use these powers and prerogatives will fix our place either high or low among our forty-five older sisters, and win for us either greatness or mediocrity.

Therefore it becomes every man among us to take hold and see that we enjoy not only distinction that is thrust upon us, but that greater distinction which we must achieve by our own efforts. In a word, we must so conduct ourselves under the new conditions, we must so wisely use the powers that are ours, as to compel the approbation and esteem of the world.

In no field of governmental endeavor lies more opportunity for a state to win true eminence than in the field of State Medicine. It is our privilege to urge that our legislators give to this branch of welfare work their earnest consideration. I propose to set forth in brief the many opportunities that exist for desirable state and municipal hygienic and social legislation.

Before taking up the various problems that ought to receive the closest attention of an enlightened community, I wish to make clear how fortunately situated we are to profit by the experience of other states. Most of the path is already laid out; we need simply follow it. The measures that are in successful operation throughout the length and breadth of the land are at our disposal for study. Knowledge that took years of bitter suffering and decades of heavy effort to gain is ours for the mere asking. The kernels have been sifted from the husk. We need not suffer, we need not wait, we need not make numberless errors—the pioneer work is done. We simply have to make it our own. Let us search out this wisdom, bodily absorb it and turn it to good account. And in doing this, while counseling caution and advising sensible discrimination, we urge no needless

delay, but quick, brilliant and decisive action by our legislators.

Public hygiene has received such an impetus within the last twenty-five years that many persons regard it as of recent origin. Such, however, is not the case, for on turning to early history we invariably find that the health of the population has been made a subject of legislation.

Hygiene was practiced by the Egyptians, who paid special attention to their diet and the care of children; they knew the danger of flood to health, and resorted to preventive measures against their occurrence, as well as against the spread of contagious diseases.

A study of the habits of primitive peoples in different parts of the globe shows that a desire to prevent disease is innate in all men. Our North American Indians, the yellow people of the island of Nias, the Traos of Cochin China, the Tunguses and Burates have their customs for treating patients and preventing sickness from spreading.

But it is the last quarter of a century that has witnessed the rise of modern sanitary science. We can well feel pride in what has been accomplished up to the present time in the way of national and local health boards, enactment of health laws, the enforcement of sanitary police regulations, laws for the suppression of quackery and quack remedies, all of which have contributed greatly to the sum total in the field of public sanitation. Not that we have done everything. Much remains to be done before the average length of human life reaches the prescribed three score and ten.

While the people of the United States have not been slow in adopting and originating sanitary measures of great value, our ideas of personal liberty, guaranteed to us by the constitution, evidently prevented early legislation in matters of public health, except in matters of state quarantine, for fear that such legislation might affect the personal habits of the citizen and lessen his freedom of action.

But today it is granted almost universally that the protection of society from the ravages of disease cannot be left to voluntary combinations of citi-

zens; such practice is inadequate. Action on the part of the state is almost a necessity. In our own country sanitary measures have no national character; the individual state is the source of most of the legislation that is in force. While federal control is spreading in this direction, it is still the separate state as an entity that looks after its public health. The pure food law is a step toward national control.

A careful examination of the laws of our states shows that most of our commonwealths have passed measures for the control and restriction of contagious diseases. A number of states enforce compulsory vaccination of school children, and have passed laws regulating the sale of poisons, and for the prevention of food and drug adulterations, and the extermination of bovine tuberculosis.

It is clearly the duty of the state to close opium dens and restrict the sale of poisons, and in regard to the sale of patent and proprietary medicines containing poisonous drugs, the contents should be expressed on the labels and the word poison added.

There was a time when even physicians in no inconsiderable number declared they were not interested in suppressing quacks. Fortunately in the present more enlightened day persons who hold this opinion are few and widely separated. As illegal practice became more and more to be a serious public menace, people and physicians arose in a body to do battle for the protection of the country's health.

The same public policy that upholds the right of the state to exclude the ignorant from treating the sick also upholds the right to exclude the ignorant from practicing law, chemistry, engineering, navigation, plumbing, in fact all professions and trades where knowledge and skill are necessary. All these trades and professions are regulated, not for the purpose of creating a monopoly for those who enter them in accordance with the law, but to protect the person and property of the public, which should at all times be the chief solicitude of every conscientious legislator.

What is the status of license to prac-

tice throughout the civilized world? Few states permit the indiscriminate practice of medicine. Generally speaking it is almost universal to require every practitioner of this science to pass successfully an examination in its numerous branches, and to register the license which he obtains as a result thereof. And, since diagnosis and treatment of disease rests upon a knowledge of the basic principles of medical and surgical science, it is fair to assume that no medical practice act will be acceptable or satisfactory to that great body of reputable physicians and enlightened laymen, that does not require all applicants for license to undergo an examination embodying all these fundamental principles, irrespective of their methods of treatment.

We should, perhaps, if doing anything else, make an earnest effort to secure the passing of a definition of what constitutes a medical practitioner.

The definition passed by the legislature of Indiana provides: "To heal, cure or relieve, or to attempt to heal, cure or relieve those suffering from injury or deformity, or disease of mind or body, or to advertise or to announce to the public in any manner a readiness or ability to heal, cure or relieve those who may be suffering from injury or deformity or disease of mind or body, shall be to engage in the practice of medicine within the meaning of this act."

The California Act declares, among other things: "Those who profess to be, or hold out as being, engaged as doctors, physicians or surgeons in the treatment of disease, injury or deformity of human beings shall be deemed as practicing medicine."

The Missouri Act provides: "It shall be unlawful for any person not now a registered physician within the meaning of the law to practice medicine or surgery in any of its departments, or to profess to cure and attempt to treat the sick and others affected with bodily or mental infirmities."

The great need of passing such a definition is perfectly apparent. It is to be expected, of course, that clairvoyants, hydropaths, and many others with names even more fearful and op-

pressive will be on hand to raise their voices in opposition, but it is to be hoped that no intelligent people will be induced to object to what the purest wisdom dictates. To prevent the learned profession from becoming a field for the unlearned and vicious, to prevent the health and property of the citizens from becoming a source of plunder to the quack and the pettifogger—this should be one of the first moves in the medical legislation of our representatives.

The foes of rational medicine at the present time are first, the quack, a man possessing possibly a high medical training and skill, but unfortunately devoid of those principles of ethics without which the practice of a profession is impossible. Second, the charlatan, a man necessarily devoid of any medical training or ability, who plays upon the feelings of his patients and administers nostrums of no value and applied with no science.

The third foe of rational medicine is the impersonal physician, namely, the nostrum, the patent medicine and the proprietary medicine. It is appalling to think of the thousands and thousands of our fellow citizens who pin their faith to these alleged remedies. Some of them have value; they are in fact often the very remedies which are prescribed in the *materia medica* and the *pharmacopœia* and administered by physicians, but distributed as they are, with absurd claims of efficiency; taken, as they are, without advice or consent of a physician, they become not only one of the greatest foes of rational medicine, but one of the greatest dangers to the public at large.

It is desirable that our legislature take time by the forelock and not wait until disease and death compel it to act in the matter of building regulations. In our cities soon there must grow up sections crowded and dirty. Let us benefit by the experience of the municipalities of other states. There is much wisdom in the old adage, "An ounce of prevention." Crowded districts, unless they are restricted by sanitary considerations, become the hotbed and distributing point of every form of communicable disease. When we realize the tuberculosis and the typhoid and

the filth diseases that pervade the poor sections of crowded cities, we have to wonder that the death rate is not infinitely more than it is.

Sane state action will arrest, at whatever cost, the reckless dissemination of tuberculosis through the dried and powdered *sputa* which are scattered upon the air, and which winds and street sweepers, by their malevolent art, convey to the sensitive lungs of the multitude. Who can say that our representatives can be too active in advocating and urging preventative medicine in the case of public and domestic hygiene? They should assault with all might and main that abomination of contrivances, insofar as offended hygienic conditions are concerned, namely, the sleeping car. Compel it to submit to public sanitation.

It is difficult to imagine any device which the genius of man could invent, better calculated to secure the best conditions for disease and the best methods for their propagation than the sleeping car. Constructed in such a manner that decent ventilation is practically impossible; partitioned into small compartments, carefully curdained, seemingly to prevent any circulation of air, if there should be fresh air; provided with enough heating to the cubic yard to complete the installation of a Turkish bath; and manned by porters to whom high temperature is an evidence of heavenly bliss, it is not difficult to conceive of the tortures to which the helpless passenger is exposed.

These compartments often carry, without any precautionary inspection, persons in all stages of phthisis and even other contagious diseases. There are no health officers to inspect incoming passengers, no provision of the law requiring complete fumigation, and no systematic appliance of any kind to prevent or eradicate disease. It has been claimed that the blankets were washed *at least twice a year*, as if that alone were sufficient excuse for all the dangers that exist. Perhaps, if one used the same blanket himself all the time, he might not be justified in objecting to such frequent lavations—but what right have we to ask if such a *careful* purification of a blanket used by different persons every night is based on

any broad principle of hygiene or good taste?

The composition of the air in a sleeper filled with passengers, after a night of low temperature, can better be imagined than described. It is true no one is compelled to spend the night in these compartments, but the ordinary coaches are not much less objectionable—and thus the traveler is left only with the option of staying at home or walking to his destination.

Items that may prove of interest to our legislators, and perhaps induce them to consider similar action, are the following: Osteopathy is at the present time recognized by law in twenty-five states, the governor of Pennsylvania vetoing the act in that state in 1907; the practice of dentistry is now regulated by law in nearly every political division of the United States, and pharmacy is regulated by statute in thirty-nine; veterinary medicine is now regulated by legislative enactment in eighteen states.

Our municipalities, in handling questions of hygiene affecting the public health, should not confine themselves to combating only the most dreaded or most dramatic forms of diseases, but after a careful scientific study of the whole problem of city life, should enter upon a carefully planned and systematic endeavor to remove or lessen some of the causes of excessive disease.

We cannot insist too strongly on a thoroughgoing system of medical inspection of schools. Nearly all the infectious diseases are most prevalent and most fatal among children of school age; this is a highly important field in which the energies of municipal health authorities may be exercised.

There does not seem to be any sign that the desire of the modern man to build himself cities to live in them is weakening. So far ahead as anyone can see, cities will continue to crowd to the edge of the stream of human life in "a blacker, incessanter line."

It is gratifying to note that those conditions in city life which are inimical to human welfare are, to a certain extent, being ameliorated. The approximation of the urban to the rural death rate shown by the last census to have occurred in several states is not in all

probability to be accounted for by a sudden shifting of the age and sex distribution of the population, but marks a real improvement in the sanitary conditions surrounding city life.

EXCESS OF URBAN OVER RURAL DEATH RATE.

Registration State	1890	1900
Connecticut	3.9	.1
Massachusetts	2.7	.8
New Hampshire	1.0	1.3
New Jersey	7.9	3.3
New York	9.3	4.0
Rhode Island	1.1	.4
Vermont	3.0	.7

Theoretically, at least, the city ought to possess a decided advantage over the country in the matter of water supply. It ought to be possible for a city to place its public supply under expert and specialized control, thus averting from the ignorant and careless members of the community the consequences that would otherwise follow their ignorance and neglect. This is not the only respect in which the city should possess a practical advantage over the rural districts. The opportunities for speedy and efficient treatment of many acute diseases are greater in a large and compact community than in one sparsely settled. Well equipped hospitals and dispensaries, the most expert surgeons, the best trained nurses are all most likely to be found in the centers of population. Many city families have experienced the increased anxiety and danger that accompany a case of illness occurring when the family is away for the summer in a little country town. The careful and timely nursing and expert treatment which even those in moderate circumstances can command in a large city are quite out of the reach of the rural dwellers.

But to offset this goodly side of city life, there are two great evils which make the city suffer in comparison to the country, namely, the poor milk supply and the consequent high infant mortality. It is well known that there is a clearly established relation between infant mortality and the city milk supply. Not only children, but microbes, find milk an exceptionally nutritious food. It is not surprising that milk that is, at the start, carelessly collected and carelessly handled, and then

carried a long distance, should often swarm with countless micro-organisms by the time it is delivered to the consumer. The evil of the poor milk supply and its slaughter of little innocents is by no means irremediable. The effects of Mr. Nathan Strauss to compel the use of pasteurized milk in cities are from all indications a magnificent step forward in sanitary living.

One thing more that our municipalities may observe with advantage to the public health is the way such large cities as New York are disposing of garbage and utilizing the great wastes that occur in cities. We may study their methods with profit, indeed. The metropolis, for example, not only builds new land on barren places, but actually earns such large sums of money as more than repay their efforts.

If, as has been demonstrated, the germ of typhoid fever is transmitted principally in water, there seems to be no reason to doubt the ability of our health officers, collaborating with broad minded municipal and state authorities and high class engineering skill, to perfect means whereby this deadly germ shall be eliminated from our water supply.

The state may help check consumption by the establishment of camps of detention where the unfortunate victims of this terrible disease may receive not only the highest degree of efficiency in medical treatment, but also be so segregated from the non-infected portions of the community as to render the spread of the disease difficult.

The recommendations I have made thus far are purely in the interest of public hygiene. But further, I desire to urge our legislators to take an advanced position in laws affecting the social health of our state.

For instance, there is ample opportunity for Oklahoma to do pioneer work in dealing with the ignorant and injurious and destructive so-called "charity," which is nourishing and multiplying the tramp class, which is offering every inducement to men now industrious by constraint to join the great army who live by their wits (or rather, by want of wits in other people), the misleading charity that is drawing people from the country, where they

might earn a modest subsistence, into the city, where they swell the host that lingers about soup houses and beaneries, and feast upon unearned bread.

Our state legislature might profitably weigh and consider thoughtfully the question involved in the idleness of imprisoning men for six days, twenty days, one hundred days, a year, five years. The culprit should be imprisoned until there is the fullest reason to believe that the necessity for his further imprisonment has ceased. With crimes dictated by sexual passion our state legislature should deal in the only way which is at once natural, just and appropriate, and sure to prevent a repetition of the offense. As regards physical precautions against human wolves guilty of such crimes, the Turks might teach us something.

The student of social conditions is probably caused as much worry today by the evil that a great strike brings in its wake as he would be by a plague. Our state government should recognize the principal that in every contract there is not only the party of the first part and the party of the second part, but there is also the party of the third part, without whose assent and contrary to whose interests no contract is binding. This unnamed party is the state. The state should insist that when a case is in dispute between capital and labor it must be considered, and should say, "This does not concern yourselves alone," and should insist on compulsory arbitration. To those who claim that compulsory arbitration is impossible, let us point out the success achieved in New Zealand by the Compulsory Arbitration Act. Compulsory arbitration may be new and comparatively untried, but it is advancing rapidly, and in a few years it will have passed into the region of the commonplace. The untold suffering that the late coal strike caused could have been altogether avoided had arbitration been early resorted to, as it eventually was when it was almost too late.

The very rigorous laws that obtain in this community to prevent miscegenation may, with some advantage, receive the thoughtful reconsideration of our legislature. If our law defines the exact fractional part of African blood

which shall vitiate a marriage, why, then, should not the law apply also to persons of Chinese or Mongolian blood, as it does in Arizona, California, Mississippi, Nevada, Oregon and Utah? Either the law should be entirely recalled or else it should be made really inclusive.

It behooves us to give attention to social legislation in regard to marriage the particularly interesting trend of among paupers. Delaware, in an effort to put some limit upon the increase of the indigent and incapable classes, has forbidden the marriage of paupers under penalty. Maine has a similar law; while in Vermont a license may not be issued for the marriage of paupers without the consent of the selectmen or overseer of the poor of each of the towns where the parties reside or are liable for their support. Michigan has taken a still more important step in advance. By a stringent act in 1899, no person with certain syphilitic diseases "shall be capable of contracting marriages," transgressors of the law being severely punished as felons.

In 1895 Connecticut prohibited the marriage of a couple either of whom is epileptic, imbecile or feeble minded, when the woman is under 45 years of age. This enlightened policy so appealed to the people of Minnesota and Kansas that these communities passed laws containing the same prohibition, the first in 1901 and the latter in 1903.

While it is true that the Oklahoma law provides for witnesses to make marriage legal, still there is no provision in our law for making it imperative to give the contracting parties certificates, neither is there any provision in the law of our commonwealth for registering marriage. It would be of advantage to us to follow the example of the New England States, which have made careful provision for the compilation and preservation of marriage records, and for the collection and publication of marriage and divorce statistics.

The time calls for sane and conclusive action on common law marriages. At present throughout the country there is much confusion and indecision in this regard. The validity of the in-

formal or common law marriage is sustained by decisions of the courts in Alabama, Arkansas, Colorado, District of Columbia; Georgia, Illinois, Iowa, Indiana, Kansas, Nebraska, Nevada, Ohio, Pennsylvania, South Carolina, Wisconsin, Tennessee, Texas and New Jersey. In the remaining states and territories, and in our own community, the courts have not as yet come to a decision; but were the question brought to a judicial test, the states remaining as they are, it is almost certain that, with one or two exceptions, all these commonwealths would sustain the validity of the informal agreement. It is clear that here is a much needed reform, and that this reform can be obtained only through stringent legislation.

The whole country is ringing with an outcry against the so-called divorce evil. The probability is that the root of the matter lies deeper in the constitution of society than most students and legislators on social matters perceive. In the excitement the blessings of divorce are almost forgotten, yet they are as palpable and as insistent as the evils.

We have a great opportunity for enlightened legislation on the question. No provision in this commonwealth is made for separation from bed and board, although it is allowed in twenty-four states, and although in seven others the courts may decree separate maintenance, which is practically the same thing as separation from bed and board. While we admit as statutory grounds for divorce adultery, desertion, cruelty, habitual drunkenness, failure to provide for wife or family, all excellent grounds for granting divorce, yet we are behind other states which have adopted incurable insanity as a legal cause, incurable, chronic mania, or dementia of either party, vagrancy of the husband, and the habitual, excessive and intemperate use of opium, morphine or chloral.

I do not formally recommend that these grounds be adopted, but I do urge that their claims for recognition be carefully weighed.

In England, as in most of our states, a marriage cannot be dissolved when insanity attacks one of the contracting

parties after such marriage has taken place. This undoubtedly imposes a cruel disability on either husband or wife. Thackery, whose wife long survived him, and many other well known people have been sufferers in this respect. Mrs. Thackery, to quote Trollope, "became ill and her mind failed her," and Thackery thereupon "became as it were, a widower to the end of his days."

Florida is one of three states in which a divorce can be obtained from an insane partner when the insanity has supervened on the marriage. This law came into operation on June 1, 1901. The provision is made that the case of insanity must be continuous, of at least four years duration, and pronounced incurable by experts.

Through the kindness of the Secretary of State of Florida, I am enabled to present a copy of the Act, I give only the first section; the rest of the Act has to do only with ways and means.

AN ACT MAKING INCURABLE INSANITY A GROUND FOR DIVORCE OF HUSBAND AND WIFE, AND REGULATING PROCEEDINGS IN SUCH CASES.

"Be it enacted by the legislature of the State of Florida,

"Section 1. Incurable insanity in either husband or wife shall be a ground for the dissolution of, and divorce from, the bonds of matrimony upon the application of the party to the marriage; provided, however, that no divorce shall be granted upon such ground unless such condition upon the part of the defendant, or party so insane shall have existed for at least four years prior to the filing of the bill for divorce; nor unless such parties upon the filing of be, and shall have been for such period an inmate and in the care of an asylum, hospital, home or retreat for treatment and care for insane persons located within or out of the state, and shall have been before the filing of such bill, adjudged a lunatic by a competent court within or without the state, and a committee or guardian of the personal property, or both where there is any property of the lunatic, shall have been appointed before the

filing of such bill. No divorce shall be granted unless the superintendent or other principal officer of the asylum, hospital, home or retreat in which the defendant may be at the time of the trial shall be examined as a witness upon the issue of such insanity, nor unless it be proved that the defendant is and has been for the period last and above mentioned incurably insane, and that the class or form of insanity from which the defendant may be suffering is one which is generally recognized as incurable. Nothing in this shall be construed to require the appointment of, in any case, any guardian or committee of the person in more than one State or Jurisdiction."

The laws of Arkansas since 1873 have enacted as one of the causes for divorce in the state the following: "When either party shall subsequent to such marriage have become permanently or incurably insane."

The statutes of the State of Idaho also provide that permanent insanity is a cause for divorce.

One may object that the case can happen in which recovery takes place after the patient apparently was hopelessly insane for considerably over four years; but such a recovery after the case has been pronounced incurable by experts would be so extremely rare as hardly to merit serious consideration.

Our legislators may find much worthy of study in the matter of prohibiting the marriage of persons with a distinct family history of insanity or alcoholism, and the granting of divorce from the unfortunate victims of incurable insanity, or confirmed drunkenness.

I make these recommendations and suggest these measures as a student of social and sanitary conditions, and hope those which are adopted will redound to the credit of our commonwealth.

DISCUSSION.

Dr. Stolper: It gives me great pleasure to commend that paper. It is excellent. The prevailing idea seems to be that the only way is to take the child and carry it forward to a hopeful, happy, healthy life.

Dr. G. H. Thraillkill, Chickasha: The paper was full of scientific law. It is one we need at this time. There exists today in the State of Oklahoma an epidemic of smallpox. Why?

Because our officers are not putting in effect proper quarantine regulations. I know cases where children have been permitted to go to the public schools, even after the order had been given that vaccination must be given, yet these children, who had not been vaccinated and who had been exposed, were allowed to attend school. I know a large family of which every member had smallpox except the one who had been vaccinated. Eight children in the family had smallpox. I have been vaccinated twenty times, and have waited on smallpox patients a great many times. I have, of course, been ordinarily careful, as physicians must be.

I think there should be a law to enforce the use of antitoxin; it protects the balance of the family where diphtheria exists. People are woefully careless. Many people need a guardian. Our health officers are not as exacting as they should be. Gentlemen, I want to say to you, as physicians, let us quarantine everybody who should be quarantined. If a man has scarlet fever, even if he is the governor has scarlet fever, even if he is the governor of this state, let us keep to this—let us quarantine.

Dr. A. D. Young, Oklahoma City: In the matter of quarantine, in my mind, it will never be practicable until the quarantine officer has nothing else to do. As long as he has to practice medicine to make a living, he will not do the work of the quarantine office effectively.

I wish to say a word in regard to the Florida law of which Dr. McComas spoke; that is, the law which permits a husband or wife to obtain a divorce from the other partner if that partner becomes insane. It is known that this law was enacted at the insistence of a millionaire whose wife was insane and who, himself, wished to marry again. Now, a man takes his wife for better or worse, and he should stand by his contract. Would Dr. McComas suggest that when a wife becomes affected with tuberculosis the husband should get a divorce from her? I say it is wrong for a man to divorce his wife when she becomes insane. When a man takes a wife he should stick to her through thick and thin.

Dr. McComas, closing: I am pleased with the comments on my paper that members have made. The work of legislation is very slow. In reference to what Dr. Young says as to my advocating that insanity be a just cause of divorce, I would hardly go on record as advocating that. The criticism are all right, but, gentlemen, if you knew how hard I worked you would be lenient, I am sure. It is my desire to investigate legislative enactments that would be of interest to our people.

SOME REMARKS ON TUMOR PATHOLOGY.

(By J. D. Hughes, M. D., Shawnee, Okla.)

A tumor is a new formation of tissue, fulfilling no function of service to the organism, and having no typical limit of growth. At some point in the body the cells begin to multiply and a new tissue is formed. This may be circumscribed and easily separated from the surrounding tissue, or may be inflated and closely blended with its adjacent parts. The tumor may be composed largely of tumor cells, or the intercellular substance may predominate. But whatever the tumor, or wherever located—it springs from pre-existing cells. "Like begets like." The osteoma springs from bone tissue, the myoma from muscle, and the carcinoma from pre-existing epithelial tissue. True, tumor cells may almost lose their identity; in normal cell division the new cell has a part of the contents of the old; but in the division of tumor cells the process is much more irregular. New cells are formed having only a part of the contents of the parental cell, and instead of the cell dividing into two equal parts a triple or fourfold division may take place.

A tumor is without function, however closely its structure may correspond with the normal structure, it can never exert a corresponding function. A lipoma may agree macroscopically and microscopically with the normal fat of the body, yet not subserving as the nutritive storehouse, increasing and diminishing to the body needs, but growing entirely out of harmony with the body economy. In extreme emaciation when all the adipose tissue has been reduced to a minimum, the lipoma continues to grow independent of all

laws governing the growth of normal tissue.

The classification of tumors is a subject of much difficulty, due chiefly to three causes; viz., to our lack of knowledge regarding their etiology; to their great dissimilarity of their structure, and to our present incomplete histological study of them. It is often convenient to divide tumors into those which are benign, and those which are malignant. Clinically, this classification has a certain justification, but can never be made exact; for any tumor may be malignant in consequence of its location in the body, yet because of its encapsulation, no metastasis, and slow growth it would be properly classed as benign. Unquestionably, the proper classification of tumors must be like that of normal tissue, histologically and embryologically based; but in the light of our present knowledge this classification is impossible; for an adenoma or carcinoma may spring from any one of the three embryonic germ layers, and at least for the present we can detect no histological difference. The classification by Virchow is probably the least confusing and is practically followed by most pathologists of the present day. Virchow divides the tumors into these three groups, viz:

Histroid, or (connective tissue tumors) those into whose structure one tissue of the body enters, ex. fibroma, lipoma, myoma, sarcoma, melanoma, hemorgio-endothelioma, and lymphangio-endothelioma.

Organoid, "Those into whose structure two or more tissues enter"—one tissue always epithelial. Ex., papello-ma, adenoma, glandular carcinoma, and squamous cell carcinoma.

Teratoid, or (mixed tumors) "Those

into whose structure whole systems of the body enter. Ex., mixed tumors of the salivary glands—benign or malignant. Mixed tumors of the genito-urinary tract, benign or malignant. Teratoma, either embryoma or fetus in fetu.

Tumors have two distinct modes of growth, one the interstitial expansive pushing aside the surrounding structures. Such tumors are generally encapsulated and usually benign. The other mode is by infiltrating the surrounding tissue. The tumors are without a limiting capsule and more frequently malignant.

Tumors are intimately connected with the surrounding tissue by an abundant supply of blood vessels. These vessels, unlike those of normal tissue, are plexus form and often of capillary structure, which enter, divide, and ramify without any definite arrangement. The blood vessels of the sarcomata for the most part are mere channels, with which easily break down through pressure or in infraction. Probably this accounts for the frequent metastasis through the blood streams in the sarcomata.

Tumors may be disseminated by continuity of tissue, by lymph streams, or by way of the blood vessels. Around a tumor which spreads by continuity of tissue it is not uncommon to find masses of tumor tissue apparently separated from the primary growth. This is frequently more aparent than real, for such growths are frequently extensions of tumor tissue along the intercellular spaces, which afford little resistance, and where a locality is reached more favorable to its expansive growth, a tumor nodule is formed.

Metastasis by way of the lymphatics is the most frequent means of dissemination, especially is this true of the

carcinomata. The tumor cells are not only in close relation with the lymphatics, but have a special predilection for the lymph spaces. Detached carcinoma cells have frequently been found along the course of the lymph channels, apparently on their way, either by their force of the lymph current, to find lodgment in the nearest lymph glands.

Metastasis by way of the blood vessels is the most frequently observed in the sarcomata, from which, because of their close relation with the blood vessels, and of the thinness of their walls, the cells easily find entry into the blood streams.

As to the etiology of tumors, our knowledge is most deficient. Various theories and hypotheses have been formed, and each in turn has served an admirable purpose as a working basis; and has greatly extended our knowledge of their histological structure; but the etiology is as yet a system of theories rather than of facts.

In this era of bacteriological development, it is not surprising that micro-organisms have been considered as the cause of tumor formation. Some support was found in this theory in the fact that cultures made from tumors frequently showed the presence of bacteria; but these bacteria were found not to be specific and were nothing more than invading wound bacteria.

The blastomycites has been advanced as the exciting cause of tumors. By the injection of pure cultures into animals small nodules are produced, and to the naked eye these resemble metastasis; but the microscope shows them to be clumps of organisms and not tumor cells.

Drawing an analysis from the coccidial disease of rabbits' liver, where the epithelial cells of the bile ducts proliferate with great rapidity, the pro-

tozoa was sought as the cause of tumors. The cell "inclusions" so frequently found in the carcinoma were thought to be protozoan, but after a more careful study of the proeozoan, the general belief is that the cell "inclusions are products of neuclear degeneration or of cell secretion.

The spirocheta has been described in the transferable tumors of mice, but here it is more probable that it is the tumor cells injected which have the nature of parasites and not of any infectious micro-organisms. The embryonic or germinal theory advanced by Cohnheim assumes that in the course of embryonic development, undeveloped embryonic cells in their complexity of tissue formation become isolated and enclosed in normal tissue, and at some time during life begin to proliferate, resulting in a tumor. This theory would probably account for a few of the malformation tumors. The hypernephroma is a displaced adrenalin gland. Small misplaced spleens are not uncommon, Apparent thyroids are not infrequently observed, but the theory fails to explain the cause of true tumors.

Ribbert elaborated and extended this theory by adding another hypothesis. He regards as the cause of all tumors a displaced or isolated germinal cell group, not necessarily embryonic, but which may appear either during intra-uterine or extra-uterine life. Not every isolated germinal cell group produces a tumor, but only such as possess no growth restraining relation. Ribbert gives considerable importance to

chronic inflammatory lesions as factors in the isolation of cell group and tumor formation. The frequency of tumors following local injuries and chronic inflammatory lesions are preponderantly striking. Bruises and contusions are not infrequently followed by sarcomata. Epithelial tumors, on the other hand, are not seldom developed at the site of long continued irritation. The epithelioma of the lip may develop from constant irritation of pipestem or rough ulcerated tooth. Ulcer of the cervix uteri seems to be predisposing factor in carcinoma of that organ. It is probable that carcinoma of the stomach is preceded by ulcers, at least the lesser curvature is the most frequent site for both. Carcinoma of the biliary passage is usually associated with gallstones. Carcinoma of the liver is not infrequently associated with cirrhosis. In carcinoma of the breast mastitis seems to be a predisposing factor. The soft warts and nevi are frequent sites for the melanotic sarcoma. The parafin and tar workers from chemical irritation are predisposed to cancer, as were the chimney sweeps in the old fire place days.

On the whole it would seem as though the cause of tumors were to be found in some inexplorable tissue change. That tumors develop in the site of local injuries and chronic inflammatory lesions is more than a mere coincidence. That tissue cells displaced by trauma or connective tissue proliferation lose their "internal organization" of "growth restraining" character is a probable cause of tumors.

THE OPSONIC INDEX AND BACTERIAL VACCINES.

By W. W. Rucks, M. D.

It has been satisfactorily demonstrated that certain elements in the blood serum possess qualities enabling them to so act on bacteria as to render them an easy prey to the leucocytes; these elements have been called by Sir. A. E. Wright, their discoverer, Opsonins; and it has also been demonstrated that there is present in the blood a special opsonin for each different kind of bacteria which may invade the system, and the opsonic index may be high to one kind and low to another; they act by chemically uniting with the invading bacteria and so altering them as to make them susceptible to the phagocytic action of the leucocytes.

Leucocytes are active in proportion to the amount of opsonins in the blood. Wright has perfected a technique by which we are able to determine the amount of opsonins in a given blood, the result of which is the opsonic index. If, therefore, we say that a person, the subject of tubercular glands, has an opsonic index of 0.5 to the tubercle bacillus, we mean that his blood contains only one-half the amount of opsonins that combat the tubercle bacillus that are contained in the blood of a person who has no tubercular infection. While many things influence the opsonic index, rendering it not altogether a perfect guide to follow, yet it is so nearly perfect that it is the most satisfactory guide in treating a patient with bacterial vaccines. The principle involved in bacterial inoculation is that a vaccine consisting of sterilized bacteria of the same strain as that with which the patient is infected should be administered subcutaneously in correct doses and at proper times, and it is here that the determining of the patient's opsonic index is of value, as by it we can more

correctly estimate the proper dose to be given and by the continued observation, the time for reinoculation.

The technique for taking the opsonic index is not so difficult, and can be easily learned by one who will take a little time and pains and, it is not absolutely necessary to be a finished bacteriologist to be able to do opsonic work, yet the taking of the index is one thing which stands in the way of the wide use of bacterial vaccines if it is accepted as the only guide to follow. I have treated some cases, being guided by the index, and some by the clinical symptoms, with no great amount of difference in results. Another difficulty in the way of this very efficacious therapeutic measure becoming widely used, is the making of the vaccine. In all cases I have treated I have used the autogenous vaccine, with the exception of the gonococic and the new tuberculin.

I have had uniformly good results in treating staphylococic infections in such cases as furunculosis, pustular acne, carbuncles, etc. I will report a few cases.

M. C., male, age 18; diagnosis, furunculosis. He had crop after crop of boils, extending over a period of several months. He had been treated with tonics, and each crop of abscesses, after being lanced, would get well, only to be followed by another crop in a short time. A vaccine was made from the pus from one of these abscesses, which was found to contain staphylococci; on September 21st, after taking the index, which was 0.5, one-half c.c. of the vaccine, representing 300 million sterile staphylococci was given; on the following day he was not able to go to work as usual, was nauseated and vomited sev-

eral times, his head ached intensely and he was very dizzy. I was much alarmed, as was the patient, but to my great relief, the next day he felt much better, and on the following day stated that he felt better than he had for months. However, he could not be induced to repeat his experience, which proved unnecessary, as his boils disappeared and did not return again.

From this first case I learned not to give very large doses until I knew my patient's susceptibility.

CASE 2.

F. H., male, age 19; diagnosis, acne vulgaris. Pustules were found to contain staphylococci, which were grown in pure culture and a vaccine made. On September 18th opsonic index was 0.8; one and one-half million devitalized staphylococci were given, followed by a rather bad feeling, and a slight nausea for the next two days, and an index which had dropped down to 0.4. September 22d, patient feeling good and acne pustules looking better. September 26th, index .98. September 28th, gave a second injection of one and one-half million; no bad feeling followed it. October 20th, index .93; gave 300 million. November 7th, gave another 300 million, at which time patient was discharged cured. However, this case recently returned with a fresh crop of acne pustules, which will, I have no doubt, yield much more quickly than did the original.

Case 3 was similar to case 2, differing only in that no depression followed the initial dose and the size of the dose

taken, which reached 600 million, and the cure, so far, has been permanent.

Case 4 was one of furunculosis, sent me by Dr. Blesh. This patient had an index of .5. A staphylococic vaccine was made and one and one-half million given, followed by 300 million on the seventh day, and by the same amount on each successive day for five injections, without again taking the index; his abscesses entirely disappears and, up to a month ago, had not returned.

Case 5 is typical of a number of cases I have under observation. J. R., female, age 24; diagnosis, tubercular cervical Adenitis. September 6th, opsonic index .5; September 8th, gave 1-5000 mg. Koch's new tuberculin; September 10th, index .51; September 18th, gave 1-2000 Tuberculin T. R.; September 28th, index 1.35, gave 1-2000; October 10th, gave 1-1000 T. R.; October 15th, index 2., at which time I discontinued taking the index, but continued to give 1-1000 mg. Tuberculin T. R. every fourteen days, under which treatment, if carried out, I feel sure she will recover from her tubercular infection.

The only stock vaccine I have used has been in the treatment of gonorrhea. I have used that made by Parke, Davis & Co. and H. K. Mulford.

The cases treated were those that had refused to get well under the usual treatment. In each case 25 million killed gonococci was given as the initial dose, followed by 50 million in seven days. Three or four injections are all that I have found it necessary to give to cause the discharge to cease and the gonococci to disappear.

TUBERCULIN AND TUBERCULIN THERAPY.

BY LOUIS M. WARFIELD, M. D.
St. Louis, Mo.

It is known to all present that following the discovery of tuberculin by Koch in 1890 and the impetus given to treatment, that there soon set in a decided reaction against the use of tuberculin. In the light of our present knowledge a glance over the German journals in 1890 and 1891 is rather ludicrous, but pathetic. In the rush to get into print, even men of good standing and reputation reported cases after one or two months treatment. When it became evident that this so-called cure was a powerful agent for harm the reports ceased and the use of tuberculin seemed buried in oblivion. Possibly we should not now have such widespread belief in its efficacy, and not a few bold spirits constantly advocated its use under proper conditions. Today we know much about the toxin, but after all we know little, for the many problems concerned seem innumerable.

What is tuberculin? Briefly, it is a term that includes a dozen or more toxic products of the tubercular bacillus. Koch's original tuberculin (O. T.) known also as old tuberculin, is a glycerin extract of the toxin produced by the bacillus when grown on broth and evaporated to one-tenth its volume. Deny's bouillon filtrate (B. F.) is practically the same, except that it is not evaporated and is thought to contain substances unchanged by heat. It seems to be less toxic than O. T. Koch later dried the tubercular bacilli, ground them in a mortar and centrifugated them. The upper layer of opalescent liquid he called T. O. and the residue T. R. This residue was dried and ground and again centrifugated. After several such treatments the residue was taken up in 20 per cent glycerin so that each cc. contained two mg. of solid substance. This is new tuberculin or T. R. Koch later advocated his Bacillen Emulsion which is 0.5 per cent

pulverized tubercle bacilli in a 50 per cent solution of glycerin in water. Over fifty forms of tuberculin have been prepared and many of them have been used more or less. Those mentioned above are the most universally used. Kleb's antiphthisin and tuberculocoidin, von Ruck's Water Extract, and Beranek's tuberculin are used to some extent. The present tendency is to treat the bacilli, after dissolving off the waxy and fatty exterior, with reagents that will split off the toxic from the immunizing principle. Papers read at the recent Congress described such products. There does not seem, however, to be any very great choice. Theoretically, Lawrason Brown says a mixture of equal parts of B. F. and B. E. is the best. Personally, I have believed that T. R. theoretically should contain all the necessary immunizing substances and it is the one that I have used most extensively.

Concerning the theories of its action in the body of a tuberculous individual, it would be quite profitless to discuss, except to say that half a dozen or more explanations have been advanced, none of which is perfectly satisfactory. Suffice it to say in this connection that the reaction is a hypersensitiveness of the body which is, or has been, infected with tubercle bacilli.

Let no one hold in contempt the potency of this toxin for the tuberculous individual. The more I use it, the greater respect I have for its two-edged properties. I am firmly convinced that it is a dangerous substance in the hands of one who has not had considerable laboratory experience. When one sees symptoms of a reaction following 1-10,000 mg. one bows with respect before such a powerful toxin.

While tuberculin is highly toxic for the tuberculous person, the non-tuberculous can be given relatively large doses with impunity. Moreover, in the latter there does not develop a hypersusceptibility to tuberculin. There

*Read before the Medical Association of the Southwest, Kansas City, October 19-21, 1908.

must be products of growth of tubercle bacillus to combine in some way with tuberculin for the latter to be toxic when injected beneath the skin.

As regards the specificity of the reaction we are fortunate in having several collective statistical investigations on cattle where the post mortem examinations were carefully made. In one series of 8,000 observations, the results of the tuberculin reaction have coincided with the autopsy findings in all but a little over 2 per cent. In another series of 7,327 observations the results were practically the same. Some have said that those with syphilis, those with actinomycosis, and those with leprosy, react. Warthin has shown that microscopical examinations are necessary before one can say that a body is free from tuberculosis, and the occurrence of tuberculosis with any of these diseases is common. I believe that the specificity of the reaction is conceded by all. The well-established fact that some patients with healed lesions and other patients with advanced diseases fail to react, does not count against the practical value of the test, as it is not needed in those cases.

One of the most urgent reasons why tuberculin for so long a time was used so rarely in diagnosis was the attitude of Virchow, who stoutly maintained that generalized tuberculosis had been seen by him following an injection of tuberculin. Possibly that might happen. Hamman mentions two cases in his series of 94 cases in whom the signs seemingly increased after the diagnostic use of tuberculin, but neither patient was harmed so far as could be judged after a year's observation. Bang states that hundreds of cattle in Sweden which reacted positively are living two to four years after the injections, and that generalized tuberculosis is not more frequent among those than among others which have not been injected.

The first method of using tuberculin was subcutaneously and that is the method we rely most upon in spite of the recent simpler and more convenient tests. It is given only to those whose temperature is normal as shown by a three- or four-hourly record kept for two or three days before injection. If

the first injection proves negative, others may be given at intervals of two to three days.

In every tuberculin reaction there are four essential features which are to be carefully observed and judged: the temperature, the constitutional symptoms, the local reaction, and the focal reaction. There is in most cases a rise in temperature in from six to twenty-four hours of $1\frac{1}{2}$ to 3 degrees, with a gradual return to normal within twenty-four to thirty-six hours. There may be only malaise and a full feeling in the head or there may be intense headache, aching in all the muscles, nausea and vomiting. Persons showing very little fever may have marked symptoms while persons reacting with high temperature may have few constitutional symptoms. The local reaction at the site of the injection is a constant phenomenon of a positive reaction. Personally I pay a great deal of attention to the severity of this reaction.

When the tuberculous reaction is on the surface the changes that occur in the lesion following a reacting dose of tuberculin consists of swelling, redness and moisture which may be followed by necrosis and sloughing. When the lesion is in the lung it is at times possible to make out a focal reaction by the increase of the area of impairment, and the increase in quantity and auditory extent of the rales, or rales, not previously present, are heard at the suspected site. Focal reactions occur in about 20 per cent of positive cases. In my experience one out of three would be nearer the proportion of demonstrable focal reactions.

For the subcutaneous tuberculin tests O. T. is universally employed. I do not believe that we are ever justified in using tuberculin until every means of diagnosis has been tried and there still remains the doubt. If we follow this rule we can never do harm, for we will never inject any but an afebrile, fairly healthy person, and by beginning with a small enough dose, 1-5 to $\frac{1}{2}$ mg. we effectually preclude a violent reaction. Should there be ever so little reaction to the small dose this should be repeated. The dose should not be increased unless there was no sign or symptom of

a reaction. A good progression is $\frac{1}{2}$ mg. 1 mg. 5 mg. This last dose may be repeated. We are only looking for the early, fresh lesions and they react to small doses. Children should be started with 1-10 mg. or even 1-20 mg. The terminal dose rarely should be over 1 mg.

Three very simple methods of proving tuberculin hypersensitiveness without accompanying symptoms have been introduced in the past eighteen months and hundreds of cases are now reported in the literature. These are the cutaneous of von Pirquet, the ocular of Calmette (Wolf-Eisner), and the More friction reaction. I have had a large experience with the first two tests. The More reaction I have not tried as it is practically the same as the von Pirquet reaction. More rubs into the skin without abrasion a salve containing 25 per cent to 50 per cent old tuberculin. The results are parallel to the cutaneous test.

As regards the cutaneous reaction, I have thus described the technique: "The skin of the upper arm in a place free from hairs is washed with alcohol and allowed to dry. On two places situated about three inches apart is dropped from a sterilized dropper or pipette, one small drop of a 25 per cent solution of Koch's old tuberculin. I am now using crude tuberculin as recommended recently by von Pirquet. (*Interstate Med. Jour.*, vol. xv, no. 3, 1908) The skin between the drops is then scarified with the lance by turning it to and fro, and then through the drops the scarification is done. After one or two minutes the tuberculin is mopped up. No dressing is necessary. The scarification must not draw blood. Should the faintest reaction occur it is easily seen by comparing it with the central control spot. The reaction consists in the formation of a papule, the center of which is the scarified spot. There may be vesiculation and the hyperemia may extend a half inch or more from the center. I have never seen pustulation and I have never known of any symptoms other than a slight itching. Having made over 300 tests I am convinced that a negative test in an adult is good evidence, pro-

vided there is an element of doubt, in favor of the non-tuberculous nature of the case. I do not get the reaction in $\frac{1}{4}$ of my adults tested. I realize that this is not quite in keeping with the results of others, especially on the Continent, who report 85 to 95 per cent positive. After all, we agree that the failure to react is the important point. Healed as well as fresh lesions reveal hypersensitiveness sufficient to cause a reaction. I have always done the ocular reaction with a 2 per cent solution of O. T. in 3 per cent boric acid. If there is no reaction I use a 4 per cent in the other eye. I never drop the solution in the same eye twice, for the first instillation produces a local hypersusceptibility and the reaction following the second drop is only local. I have been exceedingly cautious in selecting cases for experiment, taking only those who never had any ocular inflammation of any kind, and, of 200 or more tests, I have never had any more serious result than a slight muco-purulent secretion which receded in a day or two. The test may, however, be exceedingly severe and loss of the eye may be threatened. On this account some have advised strongly against the use of tuberculin in the eye. The reaction consists in hyperemia of the palpebral conjunctiva and the caruncle. There may be all degrees from a faint blush to a purulent secretion from a highly inflamed mucous membrane. The reaction usually shows itself in from six to twelve hours and has disappeared in about thirty-six to forty-eight hours. The results of the eye tests have been about parallel with the positive cutaneous reactions. It is thought by some that the positive ocular reaction reveals active processes while the cutaneous reaction shows both latent and healed as well as active lesions. With one exception, I have always obtained the cutaneous test where there was active tuberculosis and the patient was in good condition. This was a young man who gave a history of unaccountable loss of weight and lassitude. He suffered with belching, a sour stomach, and a bad taste in his mouth. There was some cough and a little muco-purulent expectoration. The chest was mark-

edly asymmetrical and on examination there were found slightly less expansion at the right apex, a slight impairment of the percussion note with retraction at the apical resonance, prolonged expiration, and a few cupitant rales on auscultation above the clavicle. The pulse was 92, the temperature 99 F. Ocular and cutaneous tests were performed. On the following day only the faintest difference could be seen in the eyes and the reaction was not considered positive. The cutaneous reaction was negative. The physical signs and symptoms, however, were enough to diagnose tuberculosis of the lung. This was confirmed by the discovery of tubercle bacilli in the sputum. The patient was sent to the Missouri State Sanatorium where he remained five months. He gained 34 lbs. and when I examined him in September I could find no evidence of an active process.

Although we may place much confidence in the negative results of these tests, yet when we have reason to believe that the tests are misleading we must not be governed by the results.

None of the tuberculin tests must be looked upon as final. It is more rational to regard them as links in the chain of evidence which begins with the history of the symptoms.

One interesting feature of the cutaneous and ocular tests is that the cutaneous occurs when the ocular is negative, but the ocular does not occur when the cutaneous is negative. When the ocular is positive, so is the cutaneous and so is the subcutaneous. The relative value of these methods has recently been so well defined by Lawrason Brown that I quote his ideas verbatim: "After the consideration of these three methods, it seems to me that where time is not a very important factor, the best course for us to pursue when we wish to apply the tuberculin test to a patient presenting suspicious symptoms or physical signs of tuberculosis is first to use the cutaneous test, and if he fail to react to this, we can, with some degree of certainty attribute his symptoms to some other disease. If he react, can then use either the conjunctival, when no contraindications exist, or the subcutaneous method, in

which, I must confess, I have still greater confidence."

I can see no objection, in office practice, against performing both tests at the same sitting. If the cutaneous is positive and the instillation of 2 per cent solution of O. T. is negative, then I usually put one drop of a 4 per cent solution in the other eye. Should this be negative and the symptoms and physical signs are suggestive, I then give tuberculin subcutaneously, and I begin with even 2 mg. or 3 mg. for I am reasonably certain that the lesion must be a very small one since I should have noticed a positive ocular reaction.

And here let me state most emphatically that in order to give patients the best chance to get well, we must diagnose tuberculosis before the bacilli appears in the sputum. Elsewhere (*Interstate Med. Jour.*, vol. xv, No. 9, 1908) I have said, "It is of the utmost importance to bear in mind that the finding of bacilli is *not* necessary for a final diagnosis. Unless the process in the lung has broken down and communicates with a bronchus there cannot be bacilli in the sputum. Many a man has lost his life because of a report from a bacteriologist that no bacilli were found in the sputum. . . . It may be stated as a law that never does the negative report preclude the possibility that the disease is present. . . . Tubercle bacilli in the sputum represent the beginning of ulceration and strictly belong to the second stage of the disease."

When we begin to treat patients with tuberculin we must be fully alive to the dangers of the toxin. And we must also bear in mind that our patient may eventually be able to stand an injection of 1 cc. undiluted product, yet he cannot be said to be immune to tuberculosis because he is immune to tuberculin. Tuberculin is not a specific cure for tuberculosis. Cases side by side, some getting tuberculin, some not getting it, but all getting the best of care, food, and air, are not observed to differ much in the course of the cure. However, careful observation over a number of years has convinced men like Trudeau and Pottinger, that after a course of tuberculin treatment relapses are not so apt to occur. Moreover, patients

who reach a certain point towards recovery and then cease advancing are apparently benefitted by tuberculin. This is especially true of the cases of long standing. Weighing all the evidence I am convinced that, properly used, tuberculin does no harm and in many cases does actual good.

Various attempts have been made, as noted above, to make a product from the tubercle bacilli that would possess only the immunizing part. So far the general opinion is that this has not been done. In giving tuberculin therapeutically, the greatest care must be exercised. The initial dose should be one that surely will not cause a reaction and had better be 1-5000 mg. than 1-500 mg. Usually 1-1000 mg. T. R. to 1-2000 mg. is a safe initial dose.

No case should be given injections until the temperature is 90° F. or below that point the entire day. Neglect of this rule will inevitably lead to grief. No symptom is too trivial to note when one is using tuberculin. A headache, slight increase of cough and expectoration, slight rise of temperature, local soreness at the point of injection and other symptoms must be carefully noted. One who has not the very fullest appreciation of the dangers that might ensue, had better not use tuberculin.

As illustrations of the treatment I will briefly cite an incipient and an advanced case treated with T. R.

A young woman was feeling badly, no cough, no loss weight, but as her brother had advanced tuberculosis she thought she would like to be examined. Temperature was 99.6° F., pulse 100, regular, low tension, respiration 16. There was found limitation of expansion at the right apex with atrophy of the shoulder girdle muscles, slight prominence of the right clavicle, impaired note right upper, and bronchial respiration, especially in the supra-clavicle fossa. A week later she was sent to the sanitarium at Mt. Vernon. She remained there two months and left of her own accord. She remained in the country under more or less supervision, and on August 19, 1908, two and a half months after leaving the sanitarium, when her temperature had been normal

for some time, she was given 1-1000 mg. T. R. At that time examination revealed so little that it was difficult to say if any lesion were present. At intervals of ten days the dose has been increased until now she has 1-50 mg., and she expects to go to work next month. The intervals of injection vary with different men from twice a week to once every two weeks. Some try to carry their patients to 1 cc. crude tuberculin by gradually increasing doses. Others do not believe that it is necessary to give but the smallest doses. Some like to see a mild reaction. The majority of those who are obtaining the best results with tuberculin therapy are careful that no reaction shall occur. If there is a reaction, at the next injection the dose is decreased to the last one that did not cause a reaction, and this dose may be repeated several times.

I saw a young married woman on February 5, 1908, who had been allowed to get into a condition of advanced tuberculosis through the carelessness of her medical attendant. The patient became pregnant in January, 1907, since which time she had been gradually losing flesh and strength. The child was born in September, and since then the patient has had night sweats, fever, violent cough and all the other symptoms of advanced tuberculosis except hemorrhage. There was also amenorrhea. On examination the temperature was 101° F., pulse 136, respiration 40. Both lungs were involved, a large cavity in the upper left lobe. The patient was put to bed in an airy room and kept there until her temperature was normal. This did not occur until June, four months from the time I saw her. She was then started on 1-1000 mg. T. R., and injected every fifth day, increasing 1-1000 mg. at every dose until 1-100 mg. was given, then increasing 1-100 mg. at every dose. By August 26th she was getting 1-10 mg. This caused a mild reaction, so next time she was given 1-25 mg., the dose that did not cause reaction. Her condition was so good that it was thought wise to send her away to complete her cure. Since her arrival at Valmora Ranch, she has been rapidly improving in flesh and strength. I believe tuberculin helped this case more

than any case on which I have used it. True, she gained about twenty pounds and had begun to take short walks when the tuberculin treatment was begun, but it certainly seemed to lift her along, and those who did not know what was being done remarked on the rapid improvement.

Not every case of tuberculosis is suited to receive therapeutic doses of tuberculin. It is actually harmful to give it to cases which are febrile and are therefore advancing. It must never be lost sight of that we are using a toxin that we know little about, but is capable of doing untold harm as well as of doing some good.

Barnes of the Rhode Island sanitarium says that there are four chief dangers to guard against when administering tuberculin therapeutically:

First. There is the temptation to start with too large a dose.

Second. An initial dose is given when the temperature is above 99° F.

Third. The neglect to note the rise of a fraction of a degree of temperature as a partial reaction.

Fourth. A mistake in preparing the solution. Too much care cannot be exercised in satisfying oneself that accuracy has been attained.

I have purposely not mentioned the estimation of the opsonic index because I am not convinced that it is of any practical value. There is entirely too much arbitrariness about the estimation of the tuberculo-opsonic index for it to be any guide to the dosage of tuberculin. I am convinced that careful watching of the clinical symptoms is a perfectly reliable guide. It must not be forgotten that tuberculin is not an anti-toxin, but an actual toxin. It was thought that it could not be given to patients except in a sanitarium. We now know that ambulant cases may be given the toxin, provided all precautions are used and the dose very gradually increased.

In conclusion I desire to emphasize the statement made above that before we resort to tuberculin subcutaneously for diagnostic purposes, we must have exhausted all other methods of diagnosis. When given under such conditions, and a reasonable amount of care is ex-

ercised, no harm will result. Tuberculin, therapeutically, when properly given, does no harm. It may produce no immediate results, but may markedly benefit a person who can follow at the same time the modern hygienic-dietetic treatment wherever he is. It may even prove of benefit to those who must continue at work. Small doses and careful increases are most important, and by following these very closely some patients, even in advanced stages, reap great benefit. The immediate and ultimate results of treatment are often improved, fewer relapses occur, and more patients lose the tubercle bacilli in their sputum. On the whole, then, in some selected cases we may use tuberculin, but never must we lose sight of the possibility of doing irreparable harm to our patient. I am convinced that it is better to leave this form of special treatment to those who are best fitted to undertake it, even as we turn over to the ophthalmologist or aurist those cases requiring special knowledge and technique in treatment.

DISCUSSION

Dr. E. W. Schauffler, Kansas City, Mo.—It is always a great pleasure to listen to a paper by Dr. Warfield, because he is so clean cut and so positive and usually so reasonable in his claims.

When I saw the title of his paper I imagined he would strike out on a new line of tuberculin treatment, which would carry him far afield, but he has held himself down to the level, and in spite of a reasonable degree of confidence, he has marvelous reserve and conservatism in presenting this matter to us.

It may seem absurd that a man should be asked to open a discussion on tuberculin whose only experience with it was eighteen years ago, when we all broke loose and were literally wild in the first tuberculin injection mania, and with such results that we were only too glad to drop it. The profession went wild over dropping it, and there was little said about it for a long time.

I cannot enter into this discussion scientifically, and I am glad there is no demand for it in view of the paper of Dr. Warfield, because he has covered the whole ground and given us all the caution we need. It certainly looks as if this kind of treatment must be confined to institutions or to the care of patients in

outdoor clinics and dispensary work, who can be kept very much under control and under the observation of the practitioner, handling these patients with care, and adapting the treatment to the individual cases.

From my own reading I have been very much interested in the matter, and particularly in the results that have been obtained by Von Ruck, of Asheville, and a gentleman in Rhode Island, whose name I cannot recall. From reading the reports of those men and some men in Massachusetts, I have come to the conclusion that where these patients are handled right as to rest, diet and everything else, plus the tuberculin treatment, they do very well. I have not been able to find any distinct statement of a patient under similar conditions treated with tuberculin, and without it, showing any great advantage from the tuberculin treatment. If there are such statistics, I hope Dr. Warfield will give them to us. I have considerable doubt about it.

Dr. Frank Hall, Kansas City, Mo.—The subject of tuberculin therapy, of course, is one that has interested all classes of people. One is the purely scientific man who wishes to weigh carefully all methods in order to arrive at the truth, and the other is the cracked brain individual who seeks a quick means of getting hold of patients. Between the two the vast majority of the medical profession rests, for the practitioner simply regards the question as unsettled and one concerning which he needs more enlightenment.

My own work has brought me to the use of tuberculin as a diagnostic measure in the laboratory. I have used the ophthalmic reaction fifty times in the last twenty months, and find it one of the most useful methods of diagnosing a hidden tubercular lesion, so that the use of tuberculin for diagnostic purposes is good, and so far as I have been able to observe there has been no damage to the eye, if one selects the one eye that has not been the seat of infection.

I was very glad to hear Dr. Warfield express himself with regard to the opsonic index taken after the administration of tuberculin. We have found that the estimation of the opsonic index was so entirely arbitrary that it was of very little or no value. We try to take opsonic indices in our cases, and have abandoned them as a guide.

To come to the point of the use of tuberculin in cases of tuberculosis, I am much in the dark and just as undecided as anyone could be. It has been proven that the administra-

tion of tuberculin has the effect of tearing down the barrier of defense, in that it oftentimes causes necrosis and sloughing, and activity on the part of the lesion that did not otherwise exist. For that reason I have been dubious about using tuberculin as a treatment. I think Dr. Warfield has dodged the issue, and it seems to me that, at the present time, the use of tuberculin as a therapeutic measure is problematical, and until pathologists understand its effects on the lesions of tuberculosis, we have to use the remedy with great caution.

Dr. F. M. Pottenger, Los Angeles, California

—I want to congratulate Dr. Warfield on his sane paper; and, while he has referred to my use of tuberculin in fever cases, and I am fully convinced of its value, yet I would not advise its use generally in such cases and not at all unless there are exceptional opportunities for observation of the patient. After an extended experience in the use of tuberculin, I can say that Dr. Warfield's suggestions are absolutely sane, and if they are followed, will give the best results. I wish I had time (but it is so short) and I think I could show the Doctor who has just spoken, from a bacteriological standpoint, how tuberculin acts. If we can draw conclusions from the clinical and experimental work of recent years, we know that there is a certain specificity in the anti-bodies which are produced by infections. For instance, if I have an infection caused by staphylococcus, the staphylococcus toxins are the ones which stimulate the cells to the production of anti-bodies in the cure of the staphylococcus infection. If I have erysipelas, it is the streptococcus there that does the same. If I have tuberculosis, it is the toxin from the tubercle bacillus that stimulates the cells to produce anti-bodies directed against the tubercle bacillus. If we have a case of tuberculosis, and the patient gets well, the cure is due to two things, namely: a toxin which stimulates the cells, and a response on the part of the cells in the formation of protective anti-bodies which attack the bacilli and the toxins elaborated by them and destroy them. That is my conception, and I believe it is the modern conception of bacteriologists of the method or means by which all these remedies act. Their action is specific insofar that if the patient gets well of tuberculosis, he gets well because the toxins stimulate the cells to produce substances against the tubercle bacillus and its toxins. If that is true, then, if the patient gets well without any tuberculin being employed therapeutically, he gets well

because he forms his own tuberculin. If he forms his own tuberculin, and the cells are in good condition, they react and the patient recovers.

With regard to the opsonic index, and its value, it is not absolute. It is arbitrary. I am one of the pioneers in tuberculin therapy. I have used it for more than thirteen years, and in several hundred cases of tuberculosis. I have not used the opsonic index as a guide to therapy, but have secured excellent results. I believe there are times, however, when the information derived from a careful estimation of the opsonic index, even though the knowledge desired is only approximately correct, would assist very much in dosage. As a rule, however, clinical signs are a perfectly safe guide to the experienced physician in administering tuberculin. The temperature, the pulse, the cough, the expectoration and the feelings of the patient are all important; or the local appearance may be taken, as in tuberculosis of the larynx. I have watched the larynx heal time and again. It is an ideal place to watch the effect of tuberculin and the appearance of the tissues offers an absolute guide. You can see what is occurring. I watch the larynx every day, and if I give a small dose of tuberculin and it causes a slight reaction, I do not give another dose until this reaction has disappeared, nor do I increase the dose until this one fails to cause a reaction. Tuberculosis of the larynx is just as curable as tuberculosis of the lung. When I see tuberculosis of the larynx heal under my eyes, watching it day after day and month after month, it gives me some confidence in the treatment of tuberculosis elsewhere.

Patients who are treated with tuberculin do not suffer from as many complications as do these patients ordinarily. You would be surprised to know that of over a thousand cases of tuberculosis which I have treated in the past few years, I have only had to aspirate for pleurisy three times, and two of these patients came into the institution with large effusions. This is a much smaller percentage of severe effusions than would ordinarily occur. We know that nearly fifty per cent of the advanced cases of tuberculosis show lesions of the larynx. I do not remember the exact statistics, but it is rare that we have tuberculosis of the larynx occur as a complication after the patient enters our institution and begins treatment. There is something which makes these less prone to complications than the ordinary cases without tuberculin treatment, and I do not believe I am wide of the mark when I attribute it largely to tuberculin,

although the other measures employed deserve some credit.

We should not speak of the tuberculin treatment, but of the scientific treatment of tuberculosis; in other words, tuberculin plus everything we can do to build up the patient. It is not sufficient to furnish a stimulus for the cells. We must have the cells so that they are ready to respond, and if we have these two conditions we have the requisites for the improvement of the case. I am not a faddist; I recognize tuberculin as only one measure in the treatment of tuberculosis, and associated with its use must be open air, good food, careful regulation of the life of the patient, tonics when necessary, and everything which will add to the improvement of the patient, if we are going to treat tuberculosis in a scientific manner.

Dr. Warfield (closing the discussion)—I am exceedingly obliged to the gentlemen for discussing my paper so gently. I feel really very strongly on the question of tuberculin in diagnosis. Dr. Pottenger has given us the value of his experience in treatment, and I doubt if there is anyone in this country who has had the experience he has had in treating cases of tuberculosis with tuberculin, and I feel that great stress should be laid on his opinion. I wish to leave this one thought with you, namely, that we should hold to tuberculin in the diagnosis of tuberculosis, as it is one of the links in the chain of evidence of diagnosing that condition. I do not believe we should ever resort to tuberculin until we have exhausted all our other methods of diagnosis. There is always a tendency to let the laboratory man make the diagnosis when we are too lazy to make it ourselves, and it would seem that we are leaving more and more to the man who uses the microscope and bacteriological methods the ultimate question of the diagnosis. I do not believe that is right. I think even more so than ever at the present day careful percussion, auscultation, and all the other methods of physical diagnosis are absolutely essential, and then, when we are in doubt, let us go to tuberculin, recognizing the fact that tuberculin is not absolute, but is another link in the chain of evidence. When we take that attitude, I think we will diagnose our cases early, and when we diagnose them early we will no longer see advanced cases we have to treat with tuberculin plus everything else, but we will be able to treat the cases early, give them the benefit of fresh air, careful attention, and all hygienic measures that make up the cure of tuberculosis.

FROM OUR EXCHANGES

A GENERAL PLAN FOR A SCHEDULE OF MEDICAL FEES.

By J. N. McCormack, M. D., Bowling Green, Kentucky.

I have long held the opinion that it was feasible to frame a plan for a schedule of medical fees which could be easily modified, as to the amount of charges and other details, to meet the conditions and needs of almost any county or locality in any section of the country. As the plan I have in mind would be for the information, guidance and benefit of the public quite as much as the profession, it involves conferences and a full understanding with the people of the community beforehand, as well as the fullest possible publicity afterward, through the public press, placards in each office, and otherwise, the explanatory footnote being made an essential part of every publication.

One of the main difficulties about this plan in the past has been the almost universal, but wholly erroneous, opinion and insistence on the part of both profession and laity that all the physicians of a community have an equal value and should make the same charge for their services. We know full well, and in a way and to an extent that the people can not, that nothing can be further from the truth. Because of the faulty system of medical education, loose medical laws, and lack of organization and incentives to study, in vogue in this country until recent years, there are regularly licensed physicians in almost every community in the United States, in cities and towns quite as abundantly as in the country districts, who are well paid for all they know or can do for their patrons when they receive anything, and I insist that the time has come for us to deal frankly and openly with each other and the public about this and all other matters of common interest. It is essential to the success of such a plan, too, that we abandon once and forever the antiquated notion of penalties for those who do not live up to the schedule, or blacklists for those who do not pay for services. Such harsh methods are contrary to the spirit and purposes of real organization and in the very nature of things, can only be productive of misunderstandings and odium.

I have made rate cutting and cheap doctors a matter of special study in every section of the country for years, and have come to have much sympathy for this class. On getting down to bottom facts, I have always found that they charged less for their services because

they honestly knew, better than any one else did or could, that they were worth less than their competitors, and that this was their only chance to obtain or hold practice. There may be exceptions to this, but I have never found one that would bear investigation. They have my sympathy for another reason. As with the division of fees and commissions, contract and lodge practice, the use of proprietaries and nostrums, and similar mistaken practices and policies, all more hurtful to the people than to the profession, the fault is far more with the schools which pretended to educate these men than with them. In fact, without proper instruction about these matters during student life, so as to make it a part of their very being, just as important to the future physician and his patrons as instruction in anatomy or physiology, and sometimes with bad example from their teachers to start them in the wrong direction, the wonder is that more of them do not do worse. These are just the men who most need the uplifting influences of county societies and post-graduate courses, they are actual entities with which we must live, associate or contend and with tact and judgment many of them can be made competent. To suspend or expel them is far more of a punishment to their innocent patrons than to them, and it destroys the only chance of reclaiming them.

What is first and most needed in dealing with this class, for their own good as well as of the people, is to raise their earning capacity, to make them better practitioners and better men, by means of consistent, persistent postgraduate study, and by the influence and example of the higher grade members, in every county society and in such intercourse as comes in daily practice, and then in leading them to the adoption of systematic business methods and aiding them in other ways in securing better compensation. If we could substitute common sense plans of co-operation, the idea of a real community of interests, of practical, kindly helpfulness, such as is common between lawyers, in the place of the habit of fault finding, jealousy and aloofness which is still as easy to find as it is disgraceful between the physicians of many communities, the difficulties of this entire problem would be reduced to a minimum.

The county societies and postgraduate courses furnish the facilities for doing the scientific and social features of this work. For the business side of it I am advising that the profession in each county or city consider the advisability of arranging for systematic month-

ly collections, with a carefully selected business representative, and a centrally located "medical collector's office" the collector to be under bond, and on a definite salary, and with authority to appoint as many assistants as may be necessary, for whom he is responsible, very much as sheriffs and city collectors do. The collector should be a man of tact and judgment, he should hold the affairs of each physician as strictly private and confidential, and he should be well paid. This plan should not be tried anywhere until good scientific work is well under way and a spirit of harmony secured, until all of the details have been worked out with the kind of business representatives indicated, and until public sentiment is prepared for it. Even in large cities the plan is worthy of consideration for colony and office buildings, wards or other convenient groups, if it can not be made available for the entire profession. It will not be easy to do these things in any community, in fact, it is never easy to do any important reform work which is worth doing, but with such preparatory work as has been suggested, and with tact and judgment in the earlier steps, I am convinced that the plan could be made as pleasant and convenient for the people as it would be helpful and profitable to the profession.

In most parts of the northwest and on the Pacific Coast the rate of charges sanctioned by custom is sufficient to sustain a competent and equipped profession, but in many sections of the eastern, middle and southern states, outside the large centers of population, and for a large part of the profession in them, all except the surgical fees are wholly inadequate, and this is operating to the disadvantage of both the profession and people now in a way unknown to our forebears. This country in recent years has passed through an era of most remarkable prosperity, but physicians and other professional classes have not shared in it. With the cost of living almost doubled, and the cost of equipment for modern practice quadrupled, the income of medical men, except surgeons and specialists, has remained about stationary. Properly interpreted, poverty in the profession, and the lack of equipment and practical incompetency inseparable from it, is just as important to the public as to us, and the subject should be boldly discussed in public meetings and in the periodical and daily press until this real, positive danger to the people is a matter of common knowledge. Not only the higher standard of competency; but the increased usefulness of the profession in

other ways should be made plain. It now probably does more real charity than all the other vocations combined, but the generous support to which it is entitled, and which is demanded by the highest humanitarian interests, would enable it to do a systematic, intelligent, discriminating relief work which is now impossible. To an extent not dreamed of by the laity, or even by many in the higher ranks of the profession, a large per cent of the physicians in this country, in cities and towns as well as in the rural districts, on account of poverty and the pressing needs of their own families, are daily forced to take what is almost blood money from a class of widows, teachers and working women, in their times of affliction, whose incomes are so scanty when well, that it would and should be an honor to make them the special wards and beneficiaries of a properly supported profession.

The opportunity has come for me to study this whole question as no other man probably has ever been able to do. I am giving the results of this broad experience in my public talks every evening, and find, in the lay discussion which follows, that the people can be made to appreciate our difficulties and their dangers quite as readily as can the profession. In truth, unpleasant as is the admission, the trouble is with us and not with the public, as is true in regard to almost every other evil from which we suffer. If the physicians competing for the same practice in every section of the United States could really get together in all these matters, and then take the people into their confidence, the balance would be comparatively easy, as there are not enough of them to do the practice if every patient was given the time, and the kind of scientific examination and treatment to which they are entitled.

For many reasons any schedule intended for general adoption should cover only the ordinary fees for general practitioners and non-operative office work. Surgical fees are usually the subject of special arrangement, and, anyway, they vary to such an extent that an attempt to include them would give the public an exaggerated and misleading notion of what is received by the ordinary surgeon, or by any of them under extraordinary circumstances, and would do more harm than good. As a rule, too, surgeons and specialists are better paid and are well able to take care of themselves. Besides, my experience has convinced me that it is in the field of general and office practice, with the hard worked and un-

derpaid ordinary practitioners, that the pressing need for reform exists.

For obvious reasons the schedule should be adopted by the profession as a whole, or as individuals, and not by the county society. The provision in the by-laws forbidding such action by the societies was inserted after careful consideration, was certainly wise under the conditions then and still existing, and probably should be permanently retained. The membership in societies embraces only about from one-half to three-fourths of the physicians of the county. While it is probable that all, including the former sectarians, will finally come in, this will be the work of years, and although not absolutely essential, it is important that the schedule be agreed to practically by all of the active physicians of the jurisdiction, whether members or not. Besides, this has been one of the most fruitful sources of discord in societies in the past, often provoked by those who took least interest in the scientific proceedings.

With all the foregoing considerations in mind, and after the matter has been fully discussed with the people, the schedule and footnote, in their main features, are suggested only as the basis for discussion. The rate of charges will seem too high for some sections and entirely too low for others. I am proposing about what, in my judgment, would be fair and equitable at the present cost of living and equipment in the central, middle, western and southern states, but, of course, the exact fees and other details must be arranged for each community in accordance with what is deemed just and proper. The rates should not be too hard and fixed. There are people of moderate circumstances in almost every community, factory operatives and others, who ought to pay something, and yet should not pay full fees, and a wise discretion on this and similar points must be provided for in any plan which is to be comprehensive and successful.

The order of arrangement and the items of practice included are as seems best suited for most counties and communities, but the purpose is to make it so simple and flexible that it can be altered to suit varying conditions and views. For instance, if it is thought best, fees for fractures and dislocations, or any other surgical or special work, can be easily added. It will be noted that a broad distinction is made between ordinary and complete office examinations, including a thorough examination of the chest, urinalysis and other like work involving extra time and skill. My own opinion is that a double charge should be made for night practice for well-to-do people,

but I have yielded to the views of others on this point. Telephone practice is so annoying, exacting and unsatisfactory that it certainly should be paid for except where regular visits are being made, and in all cases after bed-time. Consultations are purposely made low in order to develop and encourage this variety of practice.

The form of schedule suggested and the footnote, as they should go on the placard, are as follows:

Schedule of Medical Fees for.....County.

1. Day visit in town.....\$ 2.00
2. Night visit in town..... 3.00
3. Day visit in country, first mile \$2.00;
each after mile, one way..... 1.00
4. Night visit in country, first mile,
\$3.00; each after mile, one way.... 1.50
5. Ordinary office examination and advice 1.00
6. Complete examination and advice... 5.00
7. Advice or prescription by telephone 1.00
8. Obstetric case, uncomplicated, not
over 6 hours..... 15.00
9. Life insurance examinations.
10. Consultation, double ordinary visit.
11. Surgical and other special fees as
may be arranged.

Explanatory Note.

This schedule of fees is purely advisory. It is arranged and published for the information and guidance equally of the profession and people. It is intended to suggest the fees for ordinary services by competent physicians, for those fully able to pay their bills. It in no way applies to practice for the deserving poor, of which all agree to do their full part. It may be that physicians who are less competent will feel that they should charge less for their services. This is recognized as just, and to do so will in no way affect either their society membership or professional standing. It is especially important that these less fortunate members should have the benefit of the postgraduate study courses and other scientific work of the county society, which are free to all, for their own good as well as that of their patrons, and regular attendance at these meetings should be made a condition of continued employment. Night fees are made higher for many reasons, but more especially to give time for such study and society work as is essential in keeping a physician competent to practice with safety to the people.

For the convenience and benefit of both the profession and its patrons, systematic monthly collections, in so far as possible, are requested in the future. It is believed that it will be more satisfactory to families to settle their accounts while they are small, and while they remember and are grateful for the services, and it will enable physicians to keep equipped for far better service.

From advanced sheets of the Journal of the American Medical Association.

THE CAUSE OF INTUSSUSCEPTION.

We have no adequately substantial conclusions upon the cause of intussusception. There are two theories, the theory of spasm and the theory of paralysis. It is, however, most reasonable to assume that each of these may enter to a greater or lesser degree into the production of this condition. What is necessary is that one part of the bowel should develop a larger diameter than an immediately adjacent part which slips into it. This, it is clear, may be due to dilatation of one part permitting the normal segment above to slip into it; or it may be due to contraction of one part, permitting the contracted segment to slip into the normal gut; or both contraction and dilatation may take place side by side.

Whether the development of these inequalities in the caliber of the bowel need be so great as to merit the title paralytic and spasmodic we do not know. It is conceivable that sufficient difference in two immediately adjacent parts might be due to the natural peristaltic impulses, which are constantly producing variations in the size of the bowel. W. L. Wallace offers the ingenious hypothesis that a portion of the bowel is damaged by some interference with its blood supply, and bulges and may perforate, and that the intussusception is the result of nature's effort to reinforce the weak piece by splinting it between healthy layers of intestinal wall, and that, instead of being the cause of the trouble the invagination supports the weakened intestine, after which nature sometimes reduces the intussusception.* If the damage is great, adhesions form and the damaged bowel becomes furnished with a new blood supply, or adhesions may form above and the diseased segment slough away.

The hypothesis that inequalities in the contractions and relaxations of the muscular fibers of the bowel cause intussusception is borne out by the fact that this condition is often found as a post mortem manifestation. Here it is undoubtedly due to this vermicular action.

*Jour. Am. Med. Assn., April 11, 1908.

New York State Journal of Medicine.

COUNTY SOCIETIES.

Stephens County.

At the regular meeting of the Stephens County Medical Society, held recently, the following officers were elected for the ensuing year: President, Dr. R. L. Montgomery, Marlow; Dr. Dock Long, Duncan, Vice President; Secretary-Treasurer, Dr. G. W. Brymer, Fair, and Dr. W. S. Spear, Velma, Censor for three years.

The meeting was full of interest, many ideas and cases were discussed and opinions exchanged. The question of some members of the Society prescribing whiskey and booze too promiscuously was taken up and referred to a special committee, to report at the next meeting. A committee was also appointed to investigate why our county officers were not prosecuting a case of criminal negligence on the part of some Christian Science people.

The following is the program for the next meeting, December 30, 1908:

Meeting called to order at 7 p. m.

Reading minutes of last meeting.

Reports of special committees.

"Pathological Lesions in Pneumonia"—Dr. Holliday, Duncan.

Report of a case—Dr. Long, Duncan.

"Medical Graft and Grafters"—Dr. Harrison, Comanche.

"Phlegmasia Alba Dolens"—Dr. Brymer, Fair.

"Strained Ethics vs. Criticisms."

Banquet.

Toastmaster—Dr. W. S. Spears, Velma.

Response—Dr. C. F. Frost, Duncan.

Marshall County.

Marshall County Medical Society held an annual election recently and elected the following officers: President, T. W. Hartman, Woodville; Vice President, W. Lee Davis, Kingston; Secretary-Treasurer, John A. Haynie, Aylesworth. This Society is just one year old, and a very healthy yearling it is, too.

Pittsburg County.

Pittsburg County Medical Society, on December 1st, elected officers as follows: President, Wm. E. Fowler, Al-

derson; Vice President, R. I. Bond, Hartshorne; Secretary-Treasurer, H. E. Williams, McAlester.

Drs. G. S. Norris, Crowder and F. L. Watson were elected delegates to the State Medical Association.

Washita County.

Washita County Medical Society held its annual election on the 8th of December, which resulted in the election of officers as follows: President, T. J. Lee, Rocky; Vice President, J. E. Farber, Cordell; Secretary-Treasurer, A. H. Bungardt, Cordell; Censors, Drs. W. F. Harris, Sentinel; J. W. Kerley, Cordell, and A. J. Jester, Foss. Drs. Wm. Tidball, Sentinel, and A. J. Jester, Foss, were elected delegates to the State Association.

Evidently Washita County expects to increase its membership over last year, as two delegates were elected. We hope this Society will be entitled to two delegates at the next state meeting.

Okmulgee County.

On December 7th, at 2 p. m., at Okmulgee, Okmulgee County Medical Society held an annual election at which officers were elected as follows: President, B. D. Shankle, Morris; Vice President, J. H. Perkins, Henryetta; Secretary, W. G. Little, Okmulgee; Treasurer, W. C. Mitchner, Okmulgee; Delegate, H. E. Breese, Okmulgee; Censors, A. H. Culp, Beggs; Warren Newell and J. E. Bercaw, Okmulgee. At this meeting arrangements were instituted by which public meetings are to be held in the churches of the county, at which tuberculosis and the methods of prevention of the disease will be discussed. That is surely a laudable effort and should be followed by other counties.

Kay County.

The annual election of the Kay County Medical Society was held recently, and the following officers were elected: President, W. A. Phillips, Newkirk; Secretary-Treasurer, A. S. Risser Blackwell. This Society has been very

inactive for the last two years, and we are glad indeed to see an awakening in that neck of the woods.

Hughes County.

The Hughes County Medical Society met in Holdenville on the 16th day of December and was presented with a paper by Dr. J. C. Mahr of Shawnee, Dr. W. D. Atkins of Lamar, and Dr. A. M. Butts of Holdenville, all of which were freely discussed. Resolutions were adopted commending Dr. V. Berry of Wetumka to the Okmulgee County profession and expressing our regret at losing one of our best and most faithful workers.

The Society extended its thanks to Dr. A. M. Butts for the work done for the Society the last year as President, increasing its membership from 10 to 33.

J. W. Robertson, Dustin, President; J. W. Scott, Holdenville, Vice President; A. M. Butts, Holdenville, Secretary-Treasurer, were the officers elected for the incoming year.

TO COUNTY SECRETARIES.

Do not forget that the per capita to the State Association was raised at the last annual meeting from \$1.50 to \$2. It is very desirable that the per capita be sent in as early in the year as possible, as the members will not like to miss any numbers of the Journal, and under the rules of the postoffice department, the Journal may not be sent very long without being paid for.

MEETING OF THE STATE BOARD OF MEDICAL EXAMINER

The next meeting of the State Board of Medical Examiners will be held in Chickasha on the 12th, 13th and 14th days of January, 1909. Those desiring to come before the Board for examination should write to the Secretary, Dr. Frank P. Davis, Enid, for application blanks and general instructions.

GENERAL INFORMATION FOR APPLICANTS FOR LICENSE TO PRACTICE MEDICINE IN OKLAHOMA.

1. The State Board of Medical Examiners of Oklahoma require the applicant for license to file an application on the blank form prescribed by the Board; to furnish affidavits from two reputable and legally qualified physicians as to his moral character, and to furnish two unmounted photographs, 3x4 inches in size, on the back of which shall be the sworn statement of the photographer setting forth that the applicant is the person whose portrait appears on the reverse side and the date when the same was taken. One photo must be affixed to the application in the space provided for that purpose, the other to be sent with the application but not attached.

2. Applications must be filed with the Secretary not less than fifteen (15) days before the next regular meeting of the Board to insure consideration at that meeting. Diploma and fee must be filed with the application. The fee is fifteen (\$15) dollars. Personal checks are not acceptable.

3. This Board recognizes all schools that were members in good standing of the following Associations at the time of issuing the Diploma: The American Association of Medical Colleges, The Southern Association of Medical Colleges, The National Confederation of Eclectic Medical Colleges, The American Institute of Homeopathy pathic Colleges, and such Phsio-Medical Colleges as are endorsed by the American Association of Physio-Medical Physicians and Surgeons. Applicants from colleges not members of the above associations must produce evidences of preliminary education, and that the requirements of the college from which he is a graduate, was in no wise less than that required by the above Associations at the time when his diploma was granted.

4. The Board reserves the privilege to defer final action on any application until the next meeting of the Board or until they are satisfied the requirements herein set forth have been complied with.

5. In addition to the evidence presented by the applicant, the Board reserves the privilege of securing from other sources such information as it may deem necessary.

6. The regular meeting of the Board will be held on the second Tuesday in January, April, July and October at Guthrie, unless otherwise ordered by the Board. The examinations will close on the second day, unless more time is granted by the Board. The sessions will open at 9:30 a. m. and close at 4:30 p. m. The session for January, 1909, will be held at Chickasha beginning January 12. After that meeting all regular sessions will be held at Guthrie as above stated.

7. All examinations will be written and in the English language. Candidates desiring to be examined in other than the English language will be required to pay the expense of translating the examination questions into their language, and their papers into English.

8. Candidates will be examined on the following subjects: Anatomy, physiology, chemistry, hygiene, pathology, physical diagnosis, obstetrics, gynecology, medical jurisprudence, surgery, bacteriology, histology, theory and practice, materia medica and therapeutics. The last two subjects by the members of the Board that represent the school of practice of which the applicant desires to practice. There will be ten questions on each of the above subjects. The Board may add other subjects whenever it deems it necessary to test the applicant's qualifications, and to keep abreast with medical progress.

9. Our law provides that candidates who fail to make the required grades may again take the examination within one year without additional fee.

10. Candidates must make an average of not less than 70 per cent, and not less than 50 per cent on any branch to receive a license in this state.

11. No application will be considered unless all requirements have been complied with.

12. Diplomas and other credentials are retained by the Secretary only so long as may be necessary to complete a satisfactory investigation. They will

then be delivered in person or returned by express (collect). The Board will not be responsible for diplomas or other credentials that may be lost in transit, or that may be destroyed by fire or other causes.

13. Grade cards will be sent to the applicant as soon as the papers have been graded. The examination papers are retained in the office of the Secretary two years and are open to the inspection of all interested parties. Certificates are sent by registered mail to the address given in the application, unless the Secretary is otherwise instructed.

14. We have no reciprocity with any state. All applicants for license to practice in this state must take the examination. No temporary licenses are issued. Applicants are cautioned about beginning to practice in this state until they have secured a license and had the same recorded in the county in which they intend to locate.

15. The applicant must appear before the Secretary and secure a pass card before he will be admitted to examination.

16. Ink, pens and blotters must be furnished by the applicant. Paper is furnished by the Secretary.

DR. FRANK P. DAVIS,
Enid, Oklahoma.

THE DOCTOR'S

THANKSGIVING LAMENT

It's all right for the turkey to come up higher,

And enter the life of his former buyer.
It's a physiological text

That this year's gobbler eats his brother
—the next.

But what of me? I dined on turkey,
goose,

A mallard duck and a piece of moose.
Will the metamorphosis be the same?
And that darned goose live under my
name?

Still, suppose the opposite were true—
what luck

For a blooming M. D. to swallow a
duck.

The duck? Great Scott! A quack
would appear.

And the moose? Ah, that makes me a
regular—deer.

—W. W. Stevens, Marshall, Okla.

REPORT OF NOVEMBER EXAMINATION

Oklahoma State Board of Medical Examiners.

Out of forty-four applicants taking the examination, thirty-four passed and ten failed.

PASSED

Washington University, St. Louis....	(1907)	81
University Medical College, K. C....	(1908)	91
Barnes Medical College.....	(1905)	82
Jefferson Medical College.....	(1907)	83
Louisville Hospital and Medical College	(1908)	78 84
Northwestern University, Chicago...	(1907)	88
Chicago Col. Med. & Surg.....	(1908)	83
University of Illinois P. & S....	(1908)	90 94
Hahnemann Med. Col., K. C.....	(1908)	83
University of West Tennessee.....	(1908)	71
Albany Medical College.....	(1907)	87
University of Vermont.....	(1905)	89
Kansas Medical College.....	(1874)	79
Med. Col. of Virginia.....	(1902)	81 (1906) 90
Hahnemann Med. Col., Chicago....	(1897)	79
Eclectic Medical University.....	(1905)	73
Kentucky Hospital Med. Col.....	(1900)	87
Atlanta Col. P. & S.....	(1901)	87
University of Nashville.....	(1908)	86
Kentucky School of Med..	(1907) 82 (1908)	92
Cleveland Homeopathic Med. Col....	(1907)	85
Vanderbilt University.....	(1908)	91 83
Meharry Med. Col..	(1907) 78 (1908)	81 82 81
University of Louisville.....	(1907)	81
Louisville Medical College.....	(1907)	82
Illinois Medical College.....	(1908)	87

FAILED.

Memphis Medical College.....	(1908)	64
University of Louisville...	(1908) 62 (1907)	67
Atlanta Col. P. & S.....*	(1902)	81
Barnes Medical College.....*	(1904)	74
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Cleveland Homeopathic Med. Col...*	(1906)	30
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*Fell below the minimum of 50 per cent in one or more branches.

This report is given through the courtesy of Dr. Frank P. Davis, secretary of the Board.—Editor.

OFFICIAL ROSTER.

A list of members of the State Association for the year 1908, with last known postoffice address. If anyone sees any mistakes, we will be pleased to have our attention called to them.

Aaron, W. H.,.....Pawhuska
Anderson, Fred.....Claremore
Adams, A. C.,.....Shawnee
Aiken, S. W.,.....Muskogee
Allen, E. N.,.....McAlester
Aultry, D.,.....Marietta
Ashenhurst, T. E.,.....Waurika
Abernathy, E. A.,.....Hollis
Ambrester, J. C.,.....Chickasha
Anderson, J. B.,.....Enid
Amendson, O. C.,.....Vinita
Angus, H. A.,.....Lawton
Alvis, R. H.,.....Ardmore
Arnold, C. D.,.....El Reno
Austin, J. Lewis,.....Durant
Allison, J. S.,.....Evansville, Ark.
Appling, J. S. A.,.....Doyle
Askew, E. R.,.....Hugo
Anderson, R. M.,.....Shawnee
Applewhite, G. H.,.....Tecumseh
Adams, J. A.,.....Sulphur
Adams, J. W.,.....Chandler
Austin, C. W.,.....Granite
Antle, H. C.,.....Renfrow
Aitken, W. A.,.....Enid
Adams, F. M.,.....Big Cabin
Avery, Amos,.....Sapulpa
Austin, C. L.,.....Denver
Amerson, G. W.,.....Milo
Anderson, P. H.,.....Anadarko
Ames, H. B.,.....Burlington
Allison, T. P.,.....Westville
Andrews Leila E.,.....
Chamber of Commerce Bldg., Oklahoma
Allen, John R.,.....Caddo
Bilby, Geo. N.,.....Alva
Baker, J. C.,.....Port
Bungardt, A. H.,.....Cordell
Brown, Paul R.,.....Tulsa
Bland, J. C. W.,.....Red Fork
Brymer, W. G.,.....Comanche
Barkley, J. P.,.....Comanche
Blickinsderfer, Charles.....Tecumseh
Ball, W. A.,.....Waunetta
Bradford, W. C.,.....Shawnee
Barton, V. H.,.....McAlester
Buffo, Umberto,.....McAlester
Barnes, S. M.,.....Stillwater
Breese, H. E.,.....Henryetta
Baird, A. B.,.....Oklahoma City
Bowling, J. A.,.....Alva
Bennett, D. W.,.....Sentinel
Butler, G. H., Jr.,.....Tulsa
Brodie, W. W.,.....Tulsa
Barnes, T. C.,.....Marlow
Bassman, Caroline,.....Claremore
Bence, F.,.....Burnett
Byram, J. M.,.....Shawnee
Berry, Thomas.....Gowan

Bond, R. I.,.....Hartshorne
Beach, C. H.,.....Glencoe
Bagby, E. L.,.....Fairfax
Bercaw, J. E.,.....Natura
Buchanan, T. A.,.....Lee Bldg., Oklahoma City
Brunson, C. T.,.....Hartshorne
Boyd, W. J.,.....Oklahoma City
Buxton, L. Haynes,.....Oklahoma City
Burke, Wm. H.,.....Weleetka
Bumbarger, C. C.,.....Paden
Bosley, J. G.,.....Muskogee
Bray, A. H.,.....Lebanon
Belt, M. D.,.....Isam Springs
Batson, W. V.,.....Marietta
Bruner, J. R.,.....Navina
Baird, D. W.,.....Davenport
Brown, R. A.,.....Prague
Beasley, W.,.....Bokosne
Booth, G. R.,.....Hughes
Bonnam, J. M.,.....Hobart
Barkley, A.,.....Hobart
Ballard, C. A.,.....Mannsville
Blossom, W. R.,.....Waurika
Butts, A. M.,.....Holdenville
Barr, J. H.,.....Reed
Brown, Chas. P.,.....Chickasna
Baze, R. J.,.....Chickasna
Bailey, H. C.,.....Wynnewood
Baze, W. J.,.....Civit
Burns, S. L.,.....Hennepin
Barnes, J. H.,.....Enid
Bolton, W. D.,.....Clinton
Bronaugh, J. W.,.....Mounds
Broshears, Jackson,.....Lawton
Burch, S. T.,.....Norman
Blake, Ed W.,.....Tahlequah
Ballard, A. E.,.....Lone Grove
Booth, J. E.,.....Derwood
Brown, Hadley C.,.....Okarche
Boyd, D. H.,.....Anadarko
Blakemore, J. S.,.....Muskogee
Bradford, C. B.,.....Oklahoma City
Blesh, A. L.,.....Oklahoma City
Board, J. W.,.....Okemah
Bryant, E. E.,.....Muskogee
Barger, G. S.,.....Wayne
Blaylock, T. A.,.....Madill
Beeler, C. A.,.....Burneyville
Barnwell, J. T.,.....Overbrook
Barker, E. O.,.....Guthrie
Bilby, J. F.,.....Stroud
Bisbee, W. G.,.....Chandler
Brown, Fred C.,.....Sparks
Brown, W. W.,.....Cameron
Brinks, W. J.,.....Maniteau
Beasley, A.,.....Hobart
Bailey, Crason,.....Dover
Browning, W. M.,.....Hastings
Buck, DeWitt C.,.....Eldorado
Berry, Virgil,.....Wetumka
Bledsoe, Martha,.....Chickasha
Barry, W. R.,.....Bradley
Barnum, T. C.,.....Pauls Valley
Baker, R. L.,.....Wynnewood
Barnes, F. M.,.....Paoli
Boyle, Geo. A.,.....Enid

Ballard, J. D.,	Sayre	Clement, Wm. R.,	Capitol Hill
Bagby, Louis,	Vinita	Carroll, W. B.,	Wetly
Bone, J. W.,	Sapulpa	Crenshaw, W. W.,	Dibble
Bobo, C. S.,	Norman	Crawley, J. J.,	Overbrook
Blake, G. W.,	Tahlequah	Chambers, A. M.,	Poteau
Booth, T. S.,	Ardmore	Cavett, Ernest R.,	Kiel
Bogie, W. T.,	Ardmore	Crocker, A. S.,	Tishomingo
Boadway, Frank W.,	Ardmore	Cranfill, A. G.,	Grady
Bailey, F. M.,	Carnegie	Crow, E. S.,	Olustee
Blair, Samuel,	Apache	Coryell, M.,	Chickasha
Beemer, A. J.,	Muskogee	Callaway, John,	Mescalero, N. M.
Batson, J. D.,	Marietta	Cooper, J. M.,	Enid
Browning, J. W.,	Geary	Collins, B. F.,	Needmore
Bates, Frank,	Coalgate	Chapman, M. R.,	Vinita
Brown, D. D.,	Apache	Croston, C. G.,	Sapulpa
Buchanan, M. W.,	Watonga	Cannon, R. S.,	Sterling
Brandes, G. C.,	Omega	Capshaw, M. T. J.,	Norman
Buschbaum, M.,	Elk City	Capshaw, W. L.,	Norman
Briggs, F. H.,	Atoka	Childs, J. W.,	Noble
Briscoe, B. J.,	Cherokee	Cox, J. L.,	Ardmore
Barnes, Calvin C.,	Westville	Clark, F. H.,	El Reno
Bell, Allen,	Maud	Campbell, Bertha H.,	Anadarko
Beitman, Chas. E.,	Skedee	Coyle, J. E.,	Durant
Bonner, R. S.,	Ft. Towson	Clark, J. B.,	Coalgate
Bradley, A. J.,	Albany	Cloud, A. S.,	Kiowa, Kans.
Blender, H.,	Okeene	Conn, L. D.,	Chant
Bassett N. M.,	Jett	Crabill, R. J.,	Allen
Beard, D. A.,	Westville	Clarkson, W. H.,	Blair
Bevan, W. R.,	Martin Bldg., Oklahoma City	Campbell, A. X.,	Lawton
Butler, W. A.,	Maud	Clifton, G. M.,	Stella
Bass, E. Y.,	Talala	Childs, H. C.,	Noble
		Clarke, C. B.,	Ardmore
		Chapman, J. J.,	Poolville
Clapper, E. P.,	Waynoka	Campbell, Geo. C.,	Anadarko
Conway, W. I.,	Tulsa	Campbell, Sam'l. C.,	Crescent
Clinton, Fred S.,	Tulsa	Campbell, J. L.,	Watonga
Cranfill, L. J.,	Loco	Clark, Z. J.,	Ingersoll
Cannon, J. S.,	Shawnee	Caldwell, C. W.,	Chelsea
Calhoun, C. E.,	Sylvan	Clark, Henry P.,	Tryone
Cullum, J. E.,	Earlboro	Crouch, J. E.,	Blair
Carter, J. S.,	Shawnee	Carter, M. L.,	Messer
Cone, H. L.,	Maud		
Cash, J. H.,	Glencoe	Dillon, G. A.,	Dill
Colley, K. L.,	Big Hart	Daly, T. F.,	Tulsa
Cott, W. M.,	Okmulgee	Dean, F. R.,	Fairland
Clutter, W. H.,	Oklahoma City	Dawson, J. R.,	Fairland
Childs, J. S.,	Purcell	Davis, E. F.,	Oklahoma City
Colby, J. H.,	Purcell	Day, C. R.,	Edmond
Cotteral, C. F.,	Guthrie	Dunn, Robert,	Davis
Chambers, E. M.,	Gotebo	Dennison, J. S.,	Garvin
Cullom, A. B.,	Hennessey	Duve, C. E.,	Madill
Covey, Wm. R.,	Mannsville	Duke, John W.,	Guthrie
Cantrell, D. E.,	Waurika	Davis, S. O.,	Kendrick
Cagel, T. J.,	Wetumka	Dean, S. C.,	Howe
Callaway, J. R.,	Pauls Valley	Dale, John R.,	Hobart
Clark, W. A.,	Wynnewood	Davis, John,	Oscar
Cotton, L. W.,	Enid	Davenport, A. L.,	Wecharty
Craig, J. W.,	Vinita	Dawson, D. W.,	Mangum
Clinkscales, A. M.,	Vinita	Denny, Z. C.,	Mangum
Coopedge, O. C.,	Bristow	Darst, John,	Paoli
Curtis, K. D.,	Dewey	Damrell, C. E.,	Enid
Cook, W. A.,	Tulsa	Duckworth, J. T.,	Tahlequah
Coppedge, C. E.,	Bixby	Davis, A. B.,	Sneed
Conger, H. A.,	Duncan	DeGraffinried, A. S.,	Muskogee
Colvert, C. W.,	Tecumseh	Dart, L. W.,	Tulsa
Carson, O. A.,	Shawnee	DeMeglio, Edwards,	Duncan
Cassey, Wm. A. L.,	Prague	Detar, G. A.,	Narcissa
Clarke, W. S.,	McComb	Dicken, W. E.,	Oklahoma City
Chapman, T. S.,	McAlester	Davis, W. H.,	Okemah
Cooter, A. M.,	Miami	Dean, J. A.,	Hickory
Culp, A. H.,	Beggs	Dunsworth, O. C.,	Thackerville

Davis, W. Lee.....Kingston
 Davis, W. B.....Prague
 Davis, W. H.....Chandler
 Dalby, H. L.....Wilburton
 Dye, G. H.....Millcreek
 Derr, J. I.....Waurika
 DeArmen, M. M.....Mangum
 Dodson, T. J.....Mangum
 Dodson, W. O.....Willow
 Diehl, C. H.....Purdy
 Dunlap, P. G.....Lawton
 Dunnaway, Jane E.....Noble
 Denham, Thos. W.....Hoxbar
 Dick, W. S.....Baum
 De Groat, C. E.....Muskogee
 Dail, A. W.....Cement
 Duncan,Coalgate
 Dickey, G. W.....Chance
 Dickson, C. B.....Chelsea
 Day, Wm. S.....Big Cabin
 Dinkler, Fred.....Fort Cobb
 Decker, A. J.....Jett
 Davis, J. A.....Norman
 Donohoo, J.....Afton
 Doughty, Jas. M.....Texoma
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Ellis, J. B.....Shawnee
 Edwards, R. T.....Oklahoma City
 Ellis, L. M.....Millerton
 Evans, J. J.....Stroud
 Ewing, F. W.....Terral
 Ebright, E. D.....Carmen
 Edgington, A. L.....Watonga
 Everly, A. W.....Muskogee
 Evans, T. E.....Shawnee
 Ellison, Gayfree.....Oklahoma City
 Erving, F. B.....Wellston
 Evans, E. G.....Wilburton
 Edens, M. H.....Verden
 Earnhart, C. E., 125 W. Main, Okla. City
 East, T. H.....Cement

Flagg, E. E.....Mooreland
 French, John T.....Tulsa
 Fair, A. B.....Frederick
 Frost, C. E.....Duncan
 Farrington, C.....Shawnee
 Friedeman, Paul.....Stillwater
 Fraley, J. J.....Hominy
 Ferguson, E. S.....Oklahoma City
 Fuller, J. S.....Fort Gibson
 Fisk, Chas. W.....Kingfisher
 Francisco, J. W.....Enid
 Fite, R. L.....Tahlequah
 Farrar, O. W.....Stilwell
 Funk, G. H.....Madill
 Fowler, Wm.....Alderson
 Fite, F. B.....Muskogee
 Farber, J. E.....Cordell
 Fiske, Mary Green.....Tulsa
 Ferguson, J. B.....Sallisaw
 Fric, H. C.....Duncan
 Ferris, W. W.....Moral
 Ferguson, L. H.....Ottawa
 Flesher, T. H.....Edmond
 Fullington, W. A., Security Bldg., Okla. City
 Friedson, S. A.....Leon
 Fowler, Jas. E.....Altus
 Fields, R. A.....Enid

Fulton, J. S.....Atoka
 Fitzgerald, M.....El Reno
 Fulkerson, W. C.....Marshall
 Faught, Robt. H.....Fort Townson

Grantham, Elizabeth.....Alva
 Grosshart, Ross.....Tulsa
 Gray, E. J.....Tecumseh
 Grubbs, J. O.....McAlester
 Griffith, Alfred.....Albuquerque, N. M.
 Gay, Ruth A.....Oklahoma City
 Gee, Robt. L.....Fort Townson
 Gamble, D. C.....Alva
 Gillis, J. A.....Frederick
 Grayson, A. T.....Shawnee
 Gray, Jno. W.....Quinton
 Graves, W. C.....McAlester
 Griffith, W. C.....Weleetka
 George, L. J.....Kiowa
 Grayden, A. S.....Idabel
 Gardner, R. A.....Marietta
 Gray, W. J.....Thackerville
 Gose, C. O.....Hennessey
 Gray, A. W.....Pauls Valley
 Garland, H. S.....Sapulpa
 Gooch, L. T.....Lawton
 Gehring, N. J., 705 N. Robinson, Okla. City
 Goodwin, Geo. E.....Ardmore
 Goben, H. C.....Lehigh
 Gumm, Jay.....McMillan
 Gaston, J. D.....Kingston
 Graham, E. F.....Marietta
 Gardner, B. S.....Marietta
 Gannaway, C. B.....Chickasha
 Gossom, K. D.....Custer
 Groom, W. W.....Bristow
 Griffen, D. W.....Norman
 Gelispie, L. D.....Springer
 Gill, W. W.....Gracemont
 Growden, S. B.....Cherokee

Harms, J. H.....Cordell
 Hawley, S. DeZell.....Tulsa
 Hudson, V. W.....Sallisaw
 Hart, A. E.....Sallisaw
 Holliday, J. R.....Duncan
 Harbinson, J. E.....Alma
 Hays, W. F.....Claremore
 Hughes, J. E.....Shawnee
 Hudson, W. K.....Gowen
 Hughes, Eli.....Stillwater
 Harper, R. H.....Afton
 Haas, Karl.....Harrah
 Howard, R. M.....Oklahoma City
 Heldman, M. H.....Oklahoma City
 Hilsmeire, Fred E.....Weleetka
 Herron, A. W.....Adair
 Hartman, T. W.....Woodville
 Haynie, Jno. A.....Aylesworth
 Hamill, John R.....Guthrie
 Hill, C. B.....Guthrie
 Hardy, J. J.....McCurtain
 Hartshorne, W. O.....Spiro
 Harris, W. F.....Sentinel
 Hendershot, C. T.....Tulsa
 Hunter, W. M.....Vian
 Harraway, P. M.....Marlow
 Harrison, C. M.....Comanche
 Howell, W. T.....Duncan
 enderson, W. E.....Shawnee

Holcomb, Jno. H.....Brown
 Harris, A. J.....McAlester
 Hitchcock, I. D.....Afton
 Hall, R. L.....Pawhuska
 Hunter, S. M.....Oklahoma City
 Hubbard, W. M.....Oklahoma City
 Hall, J. F.....Oklahoma City
 Hoss, Sessler.....Muskogee
 Hornbeck, H. H.....Kingston
 Holland, Jno. L.....Madill
 Haynie, W. D.....Powell
 Hahn, L. A.....Guthrie
 Hatfield, W. M.....Mulhall
 Hardy, H.....Sutter
 Horine, W. H.....Wilburton
 Holland, A. W.....Hobart
 Hathaway, A. H.....Pontotoc
 Hinson, T. B.....Altus
 Harris, Chas. H.....Konawa
 Huffman, L. H.....Hobart
 Hulen, F. P.....Pond Creek
 Hottle, W. C.....Paoli
 Haines, W. F.....Lindsay
 Hunt, T. K.....Kieffer
 Hoover, J. W.....Sapulpa
 Hues, C. P.....Lawton
 Hall, D. C.....Norman
 Higgins, H. A.....Glenn
 Hathaway, W. G.....Province
 Hume, Chas. R.....Anadarko
 Helf, J. C.....Berlin
 Hayes, R. B.....Guymon
 Hoberly, S. S.....Cumberland
 Hughson, F. L.....Centralia
 Houseworth, J. L.....Cashion
 Hankins, L. A.....Altus
 Howell, H. A.....Holdenville
 Horsley, T. J.....Vinson
 Huddle, W. I.....Lamont
 Hume, R. R.....Minco
 High, W. C.....Maysville
 Harington, W. E.....Lahoma
 Humphreys, J. B.....Bristow
 Hughes, A. R.....Manford
 Hoshall, J. L.....Franklin
 Hardy, Walter.....Ardmore
 Henry, Robt. H.....Ardmore
 Hatchett, J. A.....El Reno
 Hinke, J. J.....Hydro
 Heady, E. E.....Jett
 Hall, B. A.....Oklahoma City
 Holmes, A. I.....Ottawa
 Hibbard, J. S.....Cherokee

Iles, H. C.....Prague

Jester, J. A.....Foss
 Jackman, J. A.....Dawson
 Jones, S. B.....Sallisaw
 Jackson, Stonewall.....Kiowa
 Janeway, D. F.....Stillwater
 Jolly, J. W.....Oklahoma City
 Johnson, G. L.....Byars
 Jones, W. E.....McCurtain
 Jeter, O. R.....Reed
 Justice, H. B.....Sapulpa
 Johnson, Geo. O.....Fort Cobb
 Jeffress, J. L.....Roff
 Jeter, A. J.....Foss
 Jenks, E. E.....Glenn Pool
 James, Ed. D.....Halleyville
 Johnston, P. S.....Indianola

Jones, Fred F.....Pawhuska
 Johannes, A. D.....Oklahoma City
 Jackson, T. J.....Marsden
 Johnson, J. J.....Martha
 Jenkins, S. M.....Enid
 Johnson, G. P.....Lexington
 Jones, Harry O.....Elk City
 John, W. N.....Antlers

Kerley, J. W.....Cordell
 Kennedy, S. G.....Tulsa
 Kney, C. F.....Duncan
 Kirkpatrick, J.....LeFlore
 Knight, W. L.....Wenoka
 King, E. W.....Bristow
 Kerley, W. W.....Anadarko
 Kelly, W. R.....Watonga
 Kimmons, S. H.....Tulsa
 Kelleam, R. T.....Sallisaw
 Kuhn, J. F.....Oklahoma City
 Kirkpatrick, G. A.....Wilburton
 Kelso, M. A.....Enid
 Koons, R. F.....El Reno
 Kendall, W. L.....Durant
 Kearny, Wm.....Cheek

Kay, J. H.....Nail
 Lafferty, A. M.....Chickasha
 Lynde, L. S.....Okarche
 Logan, C. J.....Alva
 Long, L. L.....Beaver
 Lee, T. J.....Rocky
 Layson, Z. C.....Muskogee
 Lee, C. E.....Oklahoma City
 Leak, J. B.....Oklahoma City
 LaMott, G. A.....Oklahoma City
 Langsford, W.....Oklahoma City
 Love, A. W.....Blanchard
 Lloyd, H. C.....Hobart
 Looney, J. T.....Tishomingo
 Lewis, R. A.....Ryan
 Lowe, J. W.....Holdenville
 Little, J. S.....Minco
 Looney, R. E.....704 E. Ninth, Oklahoma City
 Lindsay, J. K.....Elmore
 Lamerton, W. E.....Enid
 Lain, E. S.....Indiana Bldg., Oklahoma City
 Lyford, H. O.....Sapulpa
 Lowther, R. D.....Norman
 Lively, Chas. O.....Albany
 Levi, M. H.....Elk City
 Long, T. J.....Atoka
 Lewallen, W. P.....Canadian
 Lancaster, L. T.....Avard
 Linney, R. Z.....Hopeton
 Long, Dock.....Duncan
 Long, LeRoy.....McAlester
 Lehew, J. L.....Pawnee
 Little, W. G.....Okmulgee
 Long, R. D.....Oklahoma City
 Lovelady, Benton.....Okemah
 Lewis, E. F.....Kingston
 Ledgerwood, J. L.....Tishomingo
 Looney, B. R.....Mill Creek
 Landrum, Sam H.....Olstee
 Love, J. D.....Nashville
 Leeds, A. B.....Chickasha
 Lawson, J. S.....Mavsville
 Lindsay, N. H.....Pauls Valley
 Lukens, C. J.....Enid

Lamb, Ellis.....Clinton
 Longmire, W. P.....Sapulpa
 Lane, Thos.....El Reno
 Leisure, J. B.....Watonga
 Logan, W. A.....Lehigh
 Langston, Wm. H.....Guymon

Munsell, L. S.....Beaver
 Morgan, J. H.....Tulsa
 Mayginnnes, N. W.....Tulsa
 Morris, J. W.....Sallisaw
 Morris, I. C.....Vian
 Mahr, J. C.....Shawnee
 McGee, W. N.....Shawnee
 McAllister, E. R.....Earlboro
 Miller, R. S.....Hartshorne
 Munn, R. A.....McAlester
 McHenry, D. D.....Cushing
 McWilliams, W. L.....Miami
 Mullins, Ira.....Hominy
 McLean, C. D.....Oklahoma City
 Moorman, L. J.....Oklahoma City
 Meek, F. B.....Oklahoma City
 Messenbaugh, J. F.....Oklahoma City
 May, H. A.....Okemah
 McCullough, J. H.....Checotah
 McCurdy, W. C.....Purcell
 Moreland, W. A.....Idabel
 McCaskill, W. A.....Idabel
 McCallum, Chas.....Oakland
 Martin, A. E.....Marietta
 Eelvin, Elizabeth.....Guthrie
 1221 Madison Ave., Baltimore, Md.

Morgan, C. M.....Davenport
 Mraz, John.....Prague
 Morrison, G. F.....Poteau
 McArthur, J. F.....Wilburton
 Miller, W. W.....Gotebo
 Mullinix, C. S.....Petersburg
 Maupin, C. M.....Waurika
 May, J. W.....Headrick
 Miller, J. S.....Hugo
 McQuaid, J. W.....Friendship
 Mayginnnes, P. H.....Tulsa
 McKeel, Sam A.....Sallisaw
 Moore, S. F.....Marble City
 Montgomery, R. L.....Marlow
 Marshall, J. W.....Shawnee
 Montgomery, H.....Shawnee
 Mitchell, Esther.....Shawnee
 Mitchell, R. L.....Dow
 Miller, F. A.....Gowen
 Murphy, J. B.....Stillwater
 Miller, H. K.....Fairland
 Mitchener, W. C.....Okmulgee
 Maxwell, J. H.....Oklahoma City
 Munger, G. D.....Oklahoma City
 Morgan, S. L.....Oklahoma City
 McDonald, J. G.....Okfuskee
 McBride, G. A.....Fort Gibson
 MacKeller, Milo H.....Sulphur
 Montgomery, A. B.....Checotah
 McBrayer, W. H.....Haworth
 Martin, J. A.....Valliant
 Moreland, J. T.....Idabel
 Mathews, W. F.....Bomar
 Melvin, J. L.....Guthrie
 McIntosh, J. W.....Sparks
 Marshall, A. M.....Chandler
 McClure, B. T.....Poteau
 Morrison, R. L.....Poteau

Muller, J. A.....Snyder
 Miner, E. H.....Waurika
 Montgomery, S. K.....Ryan
 Moore, J. W.....Atlee
 Murpily, Chas. B.....Warren
 Mullins, Gerald C.....Kiowa
 McClure, P. J.....Calvin
 Martin, C. C.....Guertie
 Meredith, J. S.....Coralea
 Martin, J. F.....Deer Creek
 Morton, E. L.....Hennepin
 Morgan, J. B.....Foster
 McKenzie, H. B.....Enid
 McKenzie, W. H.....Enid
 Meyberry, S. N.....Enid
 McKee, E. N.....Enid
 McCallum, S. C.....Mounds
 Mason, R. E.....Sapulpa
 Milne, Louis.....Lawton
 Mavity, R. A.....Lawton
 Manire, W. H.....Norman
 McCurray, L. E.....Tahlequah
 Moore, R. D.....Ardmore
 Muzzy, W. J.....El Reno
 McRee, O. D.....Binger
 Mitchel, E. B.....Anadarko
 Murdock, L. H.....Okeene
 McDonald, W. W.....Elk City
 McMillin, Jas.....Tyrone
 McConnell, L. H.....Elmer
 McMillan, C. W.....Ada
 Mellette, W. M.....Holdenville
 Moessner, C. T.....Jester
 McDaniels, W. B.....Jefferson
 Marrs, O. S.....Chickasha
 Mitchell, C. H.....Story
 Markham, H. P.....Pauls Valley
 Mayberry, E. A.....Enid
 Moss, R. E.....Waukomis
 McVickers, W. D.....Garber
 McBurney, C. H.....Clinton
 McAllister, J. H.....Sapulpa
 Moss, B. W.....Willow
 Miller, J. W.....Denver
 Meeker, E. D.....Lawton
 Myers, David A.....Lawton
 Mills, J. T.....Henderson
 McNees, J. C.....Ardmore
 Miller,Calumet
 Mays, R. H.....El Reno
 McClure, P. L.....Fort Cobb
 McCarley, W. H.....Colbert
 McComas, J. M.....Elk City
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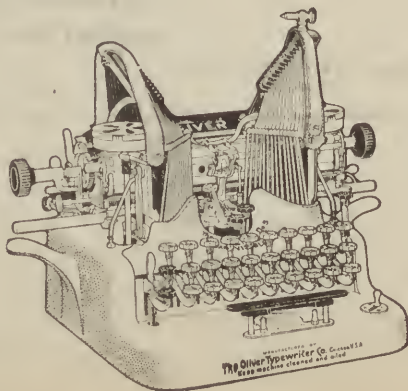
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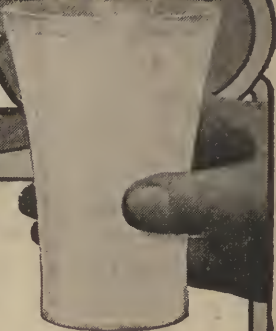
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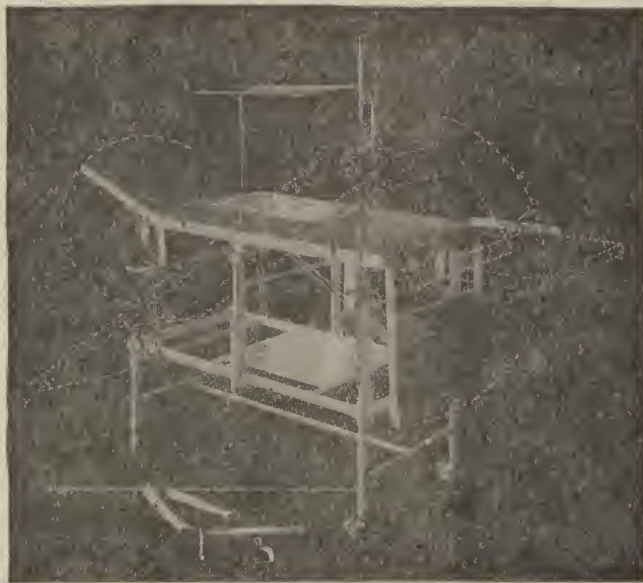
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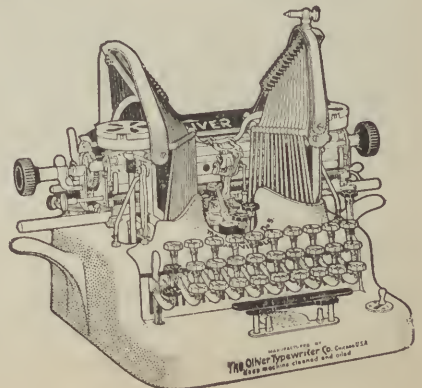
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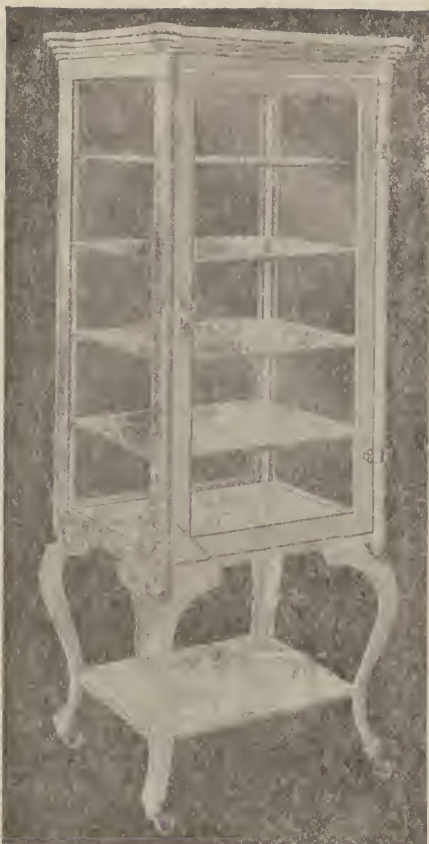
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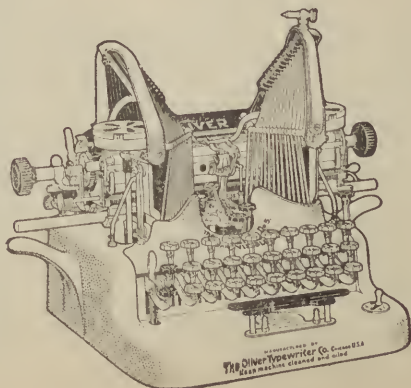
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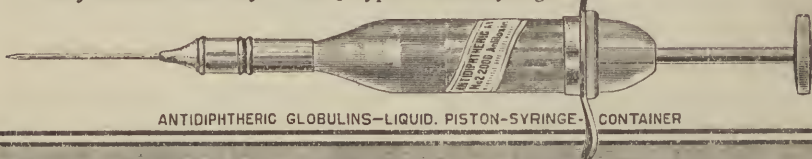
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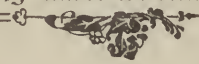
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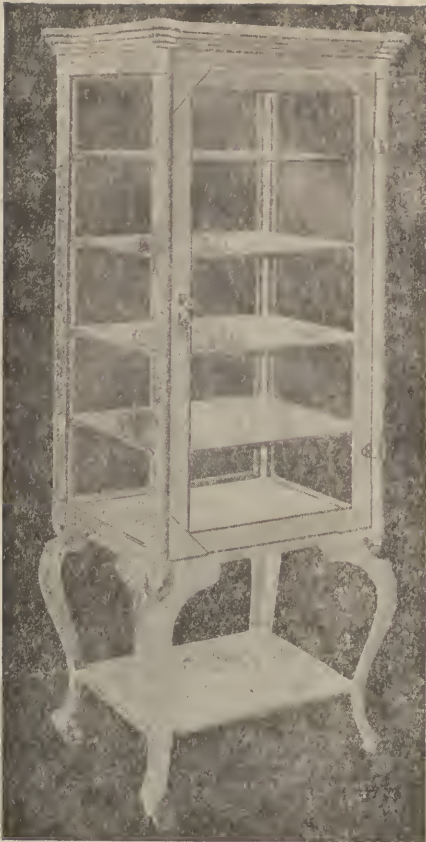
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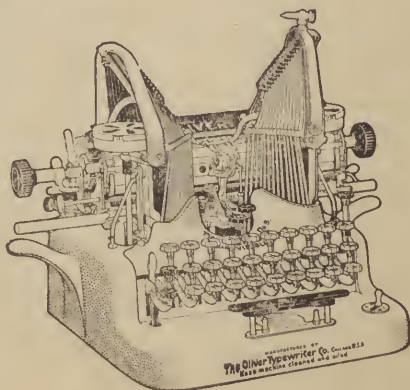
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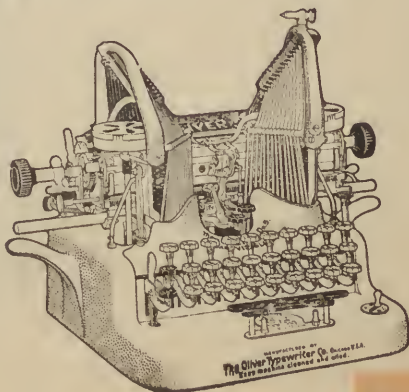
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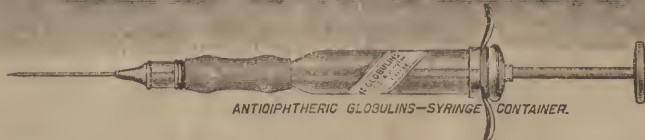
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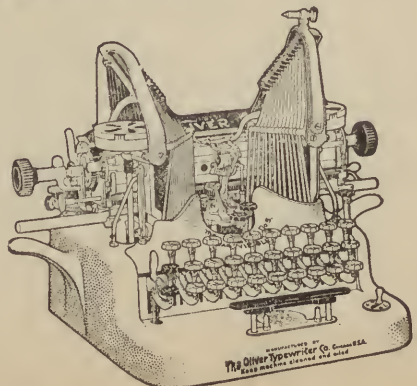
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